

**THE LAST
WORD IN
COMPUTER
ARTS**

VERBUM
3.1
JOURNAL
OF
PERSONAL
COMPUTER
AESTHETICS

**Digital
Typography
Concrete
Poetry
Silicon
Philo-
sophy**

VERBUM

The
WORD

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SPECIAL VERBIAGE ISSUE

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Illustration: Cynthia Marsh

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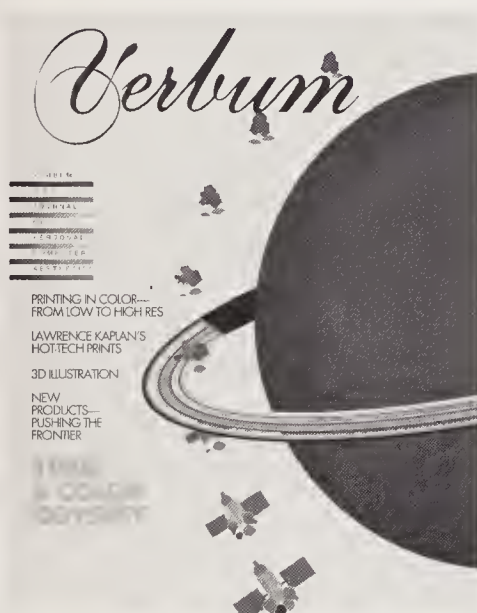
"The emergence of good taste... these guys are very serious about doing things right" — John Dvorak, PC Industry Analyst



"Artists are grabbing the cursor and spawning a distinct design sense, which this classy journal explores." — Whole Earth Review



"I love your inspiring use of media..what should we call this? 'Magazine' hardly seems appropriate." — Chuck Pratt, subscriber, Univ. of Texas



Verbum is the showcase for pioneering innovations from leading pc artists, featuring a gallery of incredible digital art. With subscribers in over 35 countries, the Journal reports on artists, events and product news, and explores desktop publishing, design and illustration processes. Each issue of *Verbum* is a work of art itself, a quality dtp production using the latest tools and techniques, serving as a permanent reference of design ideas, as well as a repository of art and information. A hybrid fine art journal and trade magazine, *Verbum* is totally unique, an essential source of information and inspiration for anyone who's involved in the new world of personal computer creativity.

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VERBUM IS AN ART JOURNAL
FOR PEOPLE INVOLVED IN
CREATIVE WORK WITH
PERSONAL COMPUTERS

This is Verbum 3.1, published Winter 1989. Verbum has been published since 1986, and is available by subscription (see last page), or on newsstands throughout the United States and Europe.

This issue of Verbum explores The Word in all its digital dimensions.

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2.3 ISSUE ERRATA The caption for Bert Monroy's "Dave's 5 & 10" PixelPaint piece was incorrect. Bert did the *car only* in Adobe Illustrator before bringing it into the PixelPaint document for painting.

Nicholas MacConnell, who co-authored "Through the Silicon Looking Glass" in the last issue, is an artist/programmer who can be reached at MindLinks, 1135 Stratford Court, Del Mar, CA 92014, 619-481-7535.

PRODUCTION NOTES

Cover designed and produced with Aldus FreeHand 2.0 by Tom Lewis of San Diego (with a little help from John Odam). **Frontispiece** by Nathan Weedmark, using SuperPaint on a Mac Plus. **Calligraphy** for Artifacts and Verbiage pages by Lloyd Kirkpatrick, autotraced in FreeHand 2.0. **Pages** were produced with Aldus PageMaker 3.01 on a Macintosh II. Proofs were run on an Apple LaserWriter IINTX. Film negative output was run by Thompson Type and Central Graphics of San Diego, CA at 1270 and 2540 dpi. PixelPaint 2.0, FreeHand and Adobe Illustrator color seps were run on film by Thompson at 2540 dpi. Printed offset by Neyenesch Printers of San Diego on 70# Flo-Kote.

Chinese sage Lao Tse said "He who knows, speaks not; he who speaks knows not." But Confucious said "Without knowing the force of words, it is impossible to know men." This paradox is well illustrated by Hakukyo-i (Hakurakuten) in his poem about Lao Tse, "Reading Roshi":
The speaker knows not;
The knower speaks not;
So says Roshi.
If Roshi is a knower,
Why did he write 5000 words?

Word: a string of bits,
characters, or bytes treated
as a single entity by a
computer, especially for
numeric purposes."

— Random House Dictionary



MIKE SWARTZBECK

ABOUT THE WORD ISSUE

In the context of computer-assisted art-making, the Word means text, fonts and typographic design. It also means writing and publishing, poetry and prose. You'll find all these well represented herein:

John Odam takes a second look at Fontographer and digital font design (see issue 1.1). Jack Davis shows off Initial FX – special type effects with initial caps. Mike Kelly covers editing programs for writers. Michael Rossman gives us a satirical look at third-generation word processors. Steve Hannaford talks technical reality on font management in the dtp world, and in New Frontier Products, we report on Breakthroughs, big and small. This issue's Gallery takes on a partly Verbiage character, with a concrete poetry revival, and significant contributions from the Japanese electronic art community and other poetic lights on the Verbum net.

We hope you enjoy *Verbum 3.1*, a celebration of The Word.

INTRO

IN THE BEGINNING

Yes, *verbum* means "the word." It implies an active force, the primal *verb*. It relates to the reasoning power of the human mind, and our connection to a cosmic plan, or *logos*. But simply put, *verbum* means the word, and all that comes from it: language, reflection, writing, culture. Creation. So, why "*Verbum*" for an *art* journal? As I've mentioned in previous columns, I discovered the word in an M. C. Escher piece entitled *Verbum*, and used it for a one-man show in 1985: *Macintosh Verbum*. With the magazine, I've considered our subject matter to be, in a way, new forms of the Word. You might say that the Word is, in a sense, the Code. Everything we do on a computer – crunching numbers, processing words, playing music or painting with pixels – depends on the computer's programs. These lines of code, elegant language constructs, are written by talented high-tech scribes. They define the world we enter through the terminal: the interface, environment, capabilities. The authors of these programs, the designers, engineers, programmers, are in fact world builders. And the new worlds they create begin with the word.

The *Verbum* journal, inspired on the one hand by innovative technology (evolutionary hardware design, poetic code), and on the other by a tradition of literary and art journals, is an ongoing effort to connect the spirit of creativity with the new electronic art media. An era is just beginning: the revolutionary graphics tools, the interface schemes, are laying a foundation for more active, even interactive, art forms. We need creativity, and quality, and *conscience* in this new world of computer-assisted art making. If artists are indeed the antennae of the race, capturing the conscience of society and the vision of the future, we need this kind of Art now, at the dawn of the electro-media world, because the technology is going to grow and become more complex and affect our consciousness in new and potentially wonderful ways. Hypermedia is more than hype. Interactivity is opening new dimensions. Digital art, music, video, interactive fiction, games, real-time networking. The holodeck is coming sooner than you think!



omega relay



LANGUAGE LIMITS

I sometimes feel constrained by language. "Computer" bugs me. "Digital" is okay, but kind of sterile. "Electronic" is a bit cumbersome. None goes very well with "art," nor gets the point across. "Telecom" is pretty good. So is "net." In fact, *net* is a very useful and efficient word-concept. Let's try it. I've mentioned "exo" before as a possible substitute for "computer." "Working on the exo," is working on the computer, and ultimately connecting with the entire field (net?) of stored, published and transmitted information. What do you think?

SPREADING THE WORD

Desktop publishing has always been kind of a difficult term to define, but the general implication is great: we can all be publishers. And independent book publishing is just beginning to reap the benefits of dtp. Having been involved in independent book publishing and self-publishing, I take this idea seriously. To those with a desire to publish books, I say: *do it*. But as with any business venture, do your research. Check out *Small Press* magazine for info (see page 4). Explore short-run book printers such as Thomson-Shore (313-426-3939) who specialize in printing high-quality paperbacks in quantities of hundreds instead of thousands. And most importantly, get your distribution down. Don't count on bookstores for much, but do check with independent press distributors such as Book People in Berkeley, Publisher's Group West in San Francisco and Slawson Communications in San Marcos, CA. Contact Publishers' Marketing Association in L.A., (213-372-2732) about their services. Plan to develop your own direct distribution through mail, classified ads, co-marketing or other channels that relate to your subject matter and market. You might also explore opportunities for developing direct distribution channels for other *samizdat* (Russian for *self-published*) publishers. There are always vertical markets waiting to be reached – even for poetry and experimental literature!

Use your computer's many tools and resources to get the most from your time and money investment.

Roll the presses!

ART IN WORDS WORDS IN ART

From monks who crafted illuminated manuscripts to modern calligrapher-poet-artists, there is a powerful and varied tradition of illustrated writing. But a less common form of art uses word-concepts within paintings and drawings. The desktop publishing process encourages combining words with art. As with digitizing and image collage, these unique capabilities are possible only with a certain creative partner, the silicon wonder. New ideas and "associative" art forms are emerging as a result. (See April Greiman's 1986 MacDraw piece, "Does It Make Sense?" in the Walker Art Center's *Design Quarterly*.)

verbum
word
verb
logos
rune
text
code
command
bit
byte
pixel
icon
bitmaps
objects
bezier
OCR
PostScript
hypertext
word processing
thought
processing
typeface
typeset
type design
font design
publish
sample
AI
BBS
voicemail

Small Press — bi-monthly magazine for independent book publishers, 203-226-6967

The Page — no-nonsense monthly newsletter reporting on desktop publishing, 312-348-1200, P.O. Box 14493, Chicago, IL 60614.

Bove & Rhodes Inside Report — monthly newsletter reporting from the frontier of the desktop publishing/multimedia industry, Bove and Rhodes, P.O. Box 1289, Gualala, CA 95445.

Step-by-Step Electronic Design — absolutely excellent (well it is pretty good) 16-page monthly newsletter which we (the *Verbum* staff) happen to produce, in association with *Step-by-Step Graphics* magazine and Dynamic Graphics, Inc., 800-255-8800, 6000 N. Forest Park Dr., Peoria, IL, 61614.

Colophon — quarterly large-format brochure/magazine showcasing the latest PostScript graphics tools from Adobe Systems (publishers of the PostScript language, fonts, and Adobe Illustrator), 414-961-4400, P.O. Box 7900, Mountain View, CA 94039-7900.

Emigre Magazine — "the magazine that ignores boundaries," large-format quarterly art journal emphasizing international design links, innovative use of dtp tools and photographic imagery, 415-845-9021.

Leonardo — Journal of the International Society for the Arts, Sciences and Technology, quarterly magazine focusing on new technology tools for making art, 2020 Milvia, Suite 310, Berkeley, CA 94704.

Step-by-Step Graphics — bi-monthly magazine covering techniques of all forms of graphic art, 800-255-8800, 6000 N. Forest Park Drive, Peoria, IL, 61614-3592.

HOW — similar to *Step-by-Step Graphics*, but a bit trendier, also bi-monthly, 212-463-0600, 6400 Goldsboro Road, Bethesda, MD 20817.

Print — distinguished bi-monthly magazine for graphic design professionals, 301-229-6700.

Hyperlink — bi-monthly magazine for the hypermedia field, 503-484-5157, P.O. Box 7723, Eugene, OR 97401.

Whole Earth Review — the ongoing reporting of Stewart Brand's *Whole Earth Catalog* team, in a quarterly magazine, 415-332-1716, 27 Gate 5 Road, Sausalito, CA 94965.

Reality Hackers — quarterly magazine of, well, consciousness and computers? — it's out there but quite stimulating, 415-845-9018, P.O. Box 40271, Berkeley, CA 94704.

Noetic Sciences Review — quarterly journal of the Institute of Noetic Sciences, founded in 1973 by Apollo 14 astronaut Edgar Mitchell "to expand knowledge of the nature and potentials of the mind, and apply that knowledge to the advancement of health and well-being for humankind and the planet." Whew! They seem to have lived up to this goal in their work, and the excellent information presented in the magazine, 415-331-5650, 475 Gate Five Road, #300, Sausalito, CA 94965.

Revision — quarterly Journal of Consciousness and Change, academically sound (but not constrained) reportage on the frontiers of consciousness research, 4000 Albermarle Street, NW, Washington, D.C., 20016.

Gnosis — quarterly Journal of the Western Inner Traditions, edited by the former editor of *Whole Earth Review*, this is in fact a "whole Earth" of spiritual philosophies and practices, 415-255-0400, 347 Dolores Street, #305, San Francisco, CA 94110.

Parabola — quarterly "Magazine of Myth and Tradition," 212-505-6200, 656 Broadway, NY 10012.

And finally, a few good books: *Art and the Computer* by Melvin L. Prueitt (1984, McGraw Hill, New York); *Zen and the Art of the Macintosh* by Michael Green, the original desktop publishing/pc art revelation by a talented writer/illustrator/spiritual warrior (1986, Running Press Book Publishers, Philadelphia); *Making Art on the Macintosh II* by Michael Gosney and Linnea Dayton (and the *Verbum* net), (1989, Scott, Foresman and Co., Glenview, IL; see page 44 to order from *Verbum*); *The Adobe Type Catalog*, beautiful printed piece, spiral bound, \$15, Adobe Systems, P.O. Box 7900, Mountain View, CA 94039-7900, 414-961-4400; *Macintosh Desktop Typography* (1987, The Baxter Group, P.O. Box 61672, Sunnyvale, CA 94086; *The Media Lab* by Stewart Brand (1987, MIT Press, Boston), *Signal — Communication Tools for the Modern Age* (Crown, New York, or Whole Earth 800-845-2000).

WORD SPARK

For centuries, the Word has affected consciousness with a kind of genetic power. William Burroughs said "language is a virus" (and Laurie Anderson played music to the concept). Stories passed down from generation to generation carried culture forward. Written communications, beginning with painted icons on cave walls, through stone tablets, illuminated scriptures, Gutenberg printing and PostScript imagesetting, have built civilization across the ages. And intertwined with all the rote messages of gritty and wonderful human reality, there has been a thread, a kind of ongoing Story that we can see, from a certain point of view, in creative works of art. This thread is the Creation Mythos. The storytellers speak it, painters paint it, architects build it, musicians play it. The voice of the Muse. Inspiration from on high.

And where the Muse touches Earth, Spirit blossoms. Expressed in paint and words and popular music, modern Myths capture the evolution and events of our age. And today the Creation Mythos speaks boldly to a new generation's dream. At this time of the changing millenium, we need vision, those who seek, and express. Few will stand out on a limb. But sometimes artists cannot help themselves — they are gently nudged, and given light to shape as art.

The music carries this central Myth, told by poet and player, through Earth's electronic nets. The Story comes through jazz and singer and rock beat. Modern tribal myths. Myths of a great generation. Electric. Cosmic. Ecologic. Rich and wild and brilliant. The children of the Western wave. Sons of Man. Walkers of the Christian clock, following a calendar set almost two thousand years ago. The burst of spirit that reset the clock, that shaped the pace of Progress toward the Promised Land, still carries us forward.



We listen for the Hero. The Artists speak for him. They sing to him. They call him forward, a collective Christ. We can't help ourselves. We are aware. We are peaceful. We are loving. Our generation doesn't understand failure.

We are Sgt. Pepper, Superman, Luke Skywalker, Captain Kirk...

On the road to — nowhere?

WHAT ARE WE DOING HERE?

Yeah, yeah, yeah, what is life. All that stuff. Don't bother. Don't rant. Don't try to break through. Break on through! this comfy cozy tick tocking intoxicated blurred and numbed and burned out REALITY.

Don't try to push through to US>

WHO IN THE WORLD ARE WE?

WHY are we

doing what

we're doing?

THE SIMPLE

ANSWER my

son is just to

LIVE and Smell

the Coffee...

which we need to grind and sip daily hourly to

keep on track and excited about each moment so we can have

NOTHING TO FEAR so we don't try to

break on through

to the other side of Vision,

to the source of music,

to the real world.

Carl Jung sought the real world. So did Nikos Kazantzakis. Joseph Campbell. And Dali, when he would sit in front of the canvas, fall asleep and drop the spoon he was holding, WAKE UP and paint the images bursting from his subconscious.

We want the Hero to be us. We want to don't want to *know* we are the Voice of the Planet. The Spirit of the Sun. *Part of a majestic dance in space where One Soul is, a Cosmic Node, Sun Being, forever evolving, coming into awareness of itself. What if... this Star Being was a Body of Light, and this Light made a new world of individual Beings, bodies of form and movement.*



DON BAKER

What if *these bodies, this Planet-Ring wove the Light into new and wondrous forms, among them Earth and mammals. And on Earth the most subtle and splendid forms took shape, and from this garden of many lives humans emerged, and we wondered who we were, where we came from, why we were here. And we reflected, and brought forth language and art, and came to know our world and ourselves through meditation and science and mythos, and we finally rose up and saw fully who we are: One Spirit, a Star-Ring on the edge of the galaxy, becoming fully conscious through our incredible variety, to be original and contribute to a galaxy of Souls, to give back to the divine whole and to be full of life...*

Is this crazy talk, or the song of the muse: *One Soul became many Souls and we sought each other, and we loved and imagined and built great civilizations, the Cities, and the Ships, and we brought our peoples together in a synergy of cultures and interwoven families, and we sought more awareness, sought to enfold the cosmos in our quest for greater consciousness, and we electrified the world and built channels of mind in silicon and the devices of thought and feedback to ourselves. The many, seeking once again the quiet power, to be and see as One.*

And here we are. At the edge of evolution with Nature's code and crystal, programs and processors and laser disks and fiber optics and satellites. By the dawn of the third millenium, a few years from now, our children's digital connection will be as natural as a rolling lawn. Telephone/vision/communications/processing all through a transparant and customizable interactive interface. The computer? It's everywhere, a background net, like electric wiring or plumbing. These children of the millenium will have unprecedented educational resources, intercultural connections, art forms. And they will have, as we do, increasing feedback on themselves and their world. Let's help build their new reality with inspired design and enriching content!



Lighten up, now... It's only an art journal, for heaven's sake.

— Michael Gosney

■ by Steve Hannaford

FACES IN THE CROWD

It was not very long ago that it was impressive if your computer's printer could do underlined, double-underlined, and a kind of crude, overprinted bold in addition to plain type. Even more exciting, when daisy-wheel printers came along, was the chance to exchange print-wheels between Pica, Prestige Elite and a math font, for instance. I can remember rushing over to the printer to change the print wheel when a message flashed on my terminal, just to get a little variety on the page or to insert some math symbols. But the thrill of a little variety was quickly outweighed by the inconvenience of swapping wheels.

So how we all drooled when the Macintosh offered us the use of a real variety of typefaces, letting us range from New York to Geneva, Chicago to London, Toronto to Los Angeles — even to Cairo! How many arbitrary shifts we made from the miserable oblique (laughably called italic) in one font to the bold of another for emphasis.

Users of other computers sneered, but they tried to keep up. I can still remember the elaborate attempts of a colleague with a PC and a Hewlett-Packard plotter doing a miserable version of "Olde English" with a plotting pen, in colors yet!

With the LaserWriter and the first set of Adobe fonts, the micro-computer world was for the first time exposed to real typefaces. The rescalable Times, Courier, Helvetica and Symbol, with their real bold and italic faces, were good enough, but with the addition to the LaserWriter Plus of such typographic standards as Palatino, Bookman and New Century Schoolbook, Macintosh users were introduced to real typefaces, some of true distinction.

It's curious how the 35 LaserWriter Plus fonts, a rather arbitrary selection by Apple, have become canonized. So that Bitstream Corporation, for instance, has seen it necessary to provide equivalent fonts for the 35, using the same metrics as Adobe, while its Garamond and Galliard faces, for example, have designs and metrics quite independent of the Adobe versions. And Cricket is supporting (German firm) URW's versions

of the basic 35 for its film recorder and inkjet printer drivers. Much to the horror of typeface purists, we run a grave risk of having a whole generation believe that Zapf Chancery is somehow the ultimate in calligraphic typefaces, or that, next to Helvetica, Avant Garde is the sans serif typeface *par excellence*.

The benefits of type consciousness

Whatever harm may have been done by giving to so many the capacity to make fools of themselves in type, the proliferation in the Mac realm, and lately the PC world, of all these typefaces is ultimately beneficial.

People who never knew the difference between a serif and a semicolon now can begin to identify the typefaces on typical commercial literature, and can recognize tight kerning in display type. The result, in general, has led to an appreciation of fine typography, at least in many eyes that saw the printed page only in terms of its verbal content before. And beyond purely aesthetic issues, readers are getting more sophisticated about recognizing whether a particular writer is dense and impenetrable, for example, or whether the layout and graphic design of a certain magazine serve to make any writer appear that way.

The world of computer type expanded further with programs that allowed us to impose all kinds of PostScript effects on letters, making it easier than ever to treat type as a graphic element. Cricket Draw was a pioneer in this regard, with several other utilities like Laser FX offering even more adventurous capabilities. Aldus's FreeHand is the current champion in the PostScript type department. The ability to curve, flip, distort, refill, and otherwise use type as an elastic medium gave the computer graphic artist for the first time something virtually impossible with conventional type. The effort required to place text on a circle in FreeHand or Cricket Draw is trivial compared to getting out the Xacto knife to begin the equivalent process by hand with typesetter-

supplied type. In a few minutes it's possible to create a myriad of prototype curve forms on the computer, and even correct typos with ease. In this respect, at least, computer typography goes far beyond any pre-existing graphic arts techniques.

With all this good news, there are also some serious disadvantages to computer type. The release of Adobe typeface families has been slow, eccentric and spotty. While certain families, like Helvetica and Futura are represented in a wide variety of weights and widths, others are only weakly represented. Garamond, for example, is available only in a light weight. In many designers' and typesetters' minds, complete representations of a limited number of type families would be more useful than the current scattershot approach. As Cambridge (Massachusetts) typographer Stephen Owades of Customized Computer Typesetting Services says, "It's entirely too easy to sell numbers of typefaces. But for PostScript to become the universal standard for typesetting that it can be, complete font families — including, in some cases, proper masters for various size ranges — are needed."

Adobe's release sequence is still somewhat mystifying to all the designers I talk to. And the releases have been somewhat slow — slower than Adobe had promised. In contrast to the 1000-some typeface families generally available from a typesetter's library, Adobe is just now approaching 100. Some designers are going crazy waiting for certain faces to start turning up.

Adobe fonts

Why haven't non-Adobe fonts caught on yet? Certainly Casady (now Casady-Greene) and Century have been making good-looking fonts. But they haven't taken hold in the market in any serious way. The general opinion is that there are two reasons why they haven't been able to compete. The first is the use of proprietary rather than generally recognized names. But more

important is the fact that Linotype service bureaus do not support the use of these fonts.

This lack of support is no reflection on the quality of the fonts themselves. It's just that service bureaus so far generally haven't made room on their hard disks to store the non-Adobe varieties. So the fonts have to be downloaded each time they are used. In addition, once the font is on the hard disk, the entire font has to be loaded into Lino RAM to produce one character for output, whereas with Adobe fonts, individual characters can be loaded into RAM as they're needed. Downloading and "mass loading" combine to cause a significant delay each time a non-Adobe font is used. This has economic consequences for profit-oriented service bureaus, and many charge extra for the use of the non-Adobe fonts.

"We strongly encourage people to use Adobe fonts," says Steve Werner, technical manager at Central Graphics, a San Diego service bureau. "They are a hell of a lot easier to handle from a service bureau point of view. We store Adobe fonts on the hard disk of the RIP. We have the entire Adobe library stored on the hard disk, so we don't have to worry about downloading fonts like we used to."

Users of non-Adobe fonts have had to pay. "For non-Adobe fonts, we have a set-up charge of \$10 per font to pay for handling them. Basically, we penalize people for using non-Adobe fonts."

The reason non-Adobe fonts are less efficient to use is that PostScript makes a distinction between type 1 fonts and type 3 fonts. Normally, fonts created using Fontographer are type 3 fonts. The way of making type 1 fonts (which can be loaded into RAM character by character) is a well-guarded Adobe secret. However, Bitstream, Inc., recently announced that it has solved the puzzle of creating type 1 fonts. More important, it announced that it has digitized 1000 typeface families in all weights and styles, including standard ITC and Mergerthaler fonts. The first of these fonts are just being released.

The only problem, if Bitstream is telling the whole truth, is that these fonts don't have embedded in

them the famous Adobe "hints." These hints consist of information for printing the fonts at lower resolutions at lower point sizes. Reportedly these hints evoke certain distortions in the miniaturization of the PostScript character outlines — changes that make the print readable even when scrunched down to tiny sizes. Two areas on which Bitstream prides itself are more elaborate kerning tables, and font-oriented versions of utility characters like the @ sign.

One advantage Bitstream has over Adobe is that it has produced an elaborate set of non-PostScript versions of its fonts. Bitstream has already made itself the official supplier of fonts to a wide variety of devices, from film recorders to ink-jet and thermal printers and PostScript-clone imagers. The idea of the same fonts for proofing on some of the upcoming high-quality low-price color printers or film recorders as are used in a 1270 dpi PostScript device is an exciting one. We'll see if Bitstream can handle the new business with aplomb.

Without malice to Adobe, one has to wish Bitstream well. The best of the capitalist dream comes true when two firms dedicated to high quality slug it out in the same territory. We've seen wonderful results from the Illustrator-Free-Hand duel, which has produced two excellent products, both of which any electronic design professional would like to have. Likewise, Adobe is sure to be driven to upgrade and flesh out its product line, and Bitstream will be pressed to figure a way around Adobe's hints in lower resolutions.

The proliferation of new fonts is delightful. Compugraphic and Letraset have started issuing display fonts, URW seems to be poised to enter into the market in a bigger way, Casady and Century continue to put out interesting faces, and a number of smaller vendors put out specialty fonts — display faces, foreign languages and pictographs. One of the biggest complaints against desktop typesetting is about to be reversed — soon the digital faces will appear in greater numbers than the traditional ones.

Font explosion — ground zero

Along with the increase in the number of fonts comes a new set of problems. The yard-long font menu is a common problem in many design shops. It's a real exercise in mousing technique to get to Univers or Zapf Dingbats on the menu. The font menu system was invented for a time when 20 was

considered a copious number of fonts.

Related to the font explosion is the famous font ID conflict problem that Mac users confront with service bureaus. This problem seems to stem from a thought that no more than 256 fonts would ever grace the desktop, so ID numbers were provided for only that many fonts originally. So now, with many fonts sharing the same numbers, conflicts occur. There is a new numbering system, NFNTs, supported by the operating system, and there has been a concerted effort to use the system. But Apple has not yet taken the lead in assigning NFNT numbers, and so any solution is not as meaningful as it could be.

Two fine third-party products on the Macintosh side — Suitcase II and Master Juggler — have at least made it possible to carry fonts without the gigantic system overhead that was needed previously. With current Apple system files (even stripped down) taking almost half a meg of space, the addition of screen versions for dozens more fonts is an impossible situation for those with less than 4 megabytes of memory. Suitcase and Master Juggler allow you access to the fonts without having them loaded into RAM.

Also, a utility included with Suitcase II called Family Builder allows you to reconcile one of the worst font problems, the disunited family. It's bad enough to have so many fonts on the menu, but when the bold, italic and bold-italic versions have to appear scattered throughout the menu as well, it's a disaster.

The economic problem

With all the discussion we hear and read about font problems, I find it curious that one very serious problem — the shift in type economics — is not mentioned very often. With traditional typesetting, the designer spec'd the type but the typesetter bought and owned the type libraries. The typesetter made a major but worthwhile investment in the full library, so that anything from Bembo to Hobo or their equiva-

lents could be supplied on demand, whether used constantly like Helvetica or almost never, like Baby Teeth.

Steve Beckerman, manager of San Francisco service bureau Design & Type and an experienced hand in the service bureau business, sympathizes with the designer's plight. "Where before designers could go to a type shop with 3000 fonts and get access to the fonts, now they're going to spend \$185 for each one — even if it's Park Avenue that they're going to use once for a wedding invitation. At a type shop, we had 3000 fonts and used 600 to 700 on a daily basis. The others were there for that once-a-year use."

Now, not only does the typesetter (imagesetter) own the fonts, but

the end user is expected to own the fonts as well, generally for proofing on a 300 dpi device like a LaserWriter. True, the end user can be supplied screen fonts for free by the

typesetter, but the whole point of the DTP revolution is the ability to create at least proof-quality examples before committing to the final print. Bitmapped approximation would hardly do, nor could, say, PostScript effects like text along a curved path be experimented with.

There's a single-tier pricing policy for typefaces — the user who makes proof use of, say, Korinna, pays the same as the production house that outputs Korinna for a number of clients at high resolution. And more likely, the service bureau actually pays less, because it's now possible to buy Adobe families in bulk.

Some designers, like Marty Safir of Los Angeles, are sanguine about the changes. "I think the nature of the graphic design firm's role is definitely changing here. The design firm has to buy fonts, yes, but we're not paying \$800 for some knock-off of Palatino called 'Andover' that my typesetter bought from Compugraphic or whoever. Adobe's cost \$185, and guess what? Their version beats the hell out of many proprietary type manufacturers'. The other thing that makes them 'cheap' for me as a designer is that the time it used to take to trace the letters out of a type book is eliminated. I've 'paid for' a lot of fonts that way."

"And, being the control freak that I am, having my own fonts is great. So, yeah, the burden of font ownership is now on our shoulders, but the benefits outweigh the disadvantages."

Until now, the number of fonts available has kept the economic problem from being as big an issue as it's likely to be in the future. If a designer is successful enough to need a range of fonts, he or she is well off enough to afford to keep up with slow addition of fonts to Adobe's library. It may be, as I was told by Bitstream's Louise Domenitz, that the typical designer "will use only a certain range of typefaces," but based on experience to date, designers will never feel that they have too large a collection of high-quality typefaces. And if Bitstream's introduction is all they're claiming it is, and Adobe tries, as they must, to play quick catch up, then all kinds of financial obstacles will arise in terms of purchasing complete sets.

The answer, of course, is piracy — a most unpleasant reality even now. If I use a certain face for only one job a year, is it worth paying the full cost of obtaining that font? As in many of the economic considerations we face, ethical considerations say yes, but self-interest says no.

Already with service bureaus entering into a cutthroat competition on prices in some areas of the country, the practice of distributing fonts is far from unknown. It's a practice likely to grow more and more common as new service bureaus come on board dealing with a wider set of customers. It can begin seemingly innocently, but it's likely to become a requirement for doing business with some clients — a little extra. As one designer who would prefer not to be named told me, some service bureaus are very eager to hand out the fonts. "You don't ask them for it; they offer it to you."

I don't like software piracy, but it isn't hard to see how it can occur. Some of the people I know who are pirating fonts would never think of pirating a real application program. It seems to me that font makers could build two versions of fonts, one protected against use in output devices higher than, say, 600 dpi. As long as the single-tier pricing policy exists, and as long as service bureaus are fighting for clients, font piracy is going to be widespread.

■ by Michael Kelly

Page makeup, paint, drawing and illustration programs. Word processing software. Spreadsheet, database and accounting packages. We find it hard to imagine how we ever got along without them. Each issue of our favorite computer, graphics or desktop publishing magazine is full of features and reviews of the latest versions and newest entries in each class. Blazing shoot-outs worthy of *High Noon* take place in at least one

GRAMMAR AND STYLE CHECKERS: POOR STEP-CHILD COMES OF AGE?

software genre per issue, with the package still standing at the end proclaimed the winner. One category of software, however, is still the poor stepchild of the pc age: grammar and style checkers. The text that goes into page-layout programs needs as much massaging, in its own way, as do the graphics. Why, then, aren't more desktop publishers using grammar and style checkers?

A Bum Rap?

The rare reviews of grammar and style checkers that do appear in magazines tend to be negative. Are we talking about one of those software high concepts that didn't work? Their demise seems imminent, if we listen to the reviewers. Cheryle Spencer, writing on this software in "Beyond Word Processing" (February 1989 *Macworld*), declares, "None of these programs lives up to its promises. Just don't bother." Is she correct? If so, why are hundreds of thousands of these products selling? Why are several of them in their *third* generation? Should you be adding one of these to your library of programs? Let's see what these programs do and don't do, peek at their evolution and see if they're getting a bum rap from some reviewers.

Style Counters, Tutorials and Grammar Checkers

Grammar and style checkers include a range of products and functions for IBM compatibles, Macintoshes and the Apple II line. There are three types of these products: *style counters*, *tutorial style checkers* and *grammar/style checkers*. All include style-counting features.

Style counters count and average characters, syllables, words, sentences, personal pronouns and action verbs to provide you with *readability* and *grade level indexes*. These indexes estimate the accessibility of your writing to others. Counting algorithms use one or more of three widely accepted formulas: the *Flesch Reading Ease* score, the *Flesch-Kin-*

caid formula or the *Gunning Fog Index*. Professor Rudolph Flesch developed and published the first two in his *The Art of Plain Talk* and *The Art of Readable Writing*. Robert Gunning developed the third in *The Technique of Clear Writing*. They produce a score that indicates the grade level of education necessary to read a particular piece of writing.

Like style counters, tutorial style-checking programs also count parts of speech. In addition, they

examine a limited range of language *usage*, and produce more detailed reports on writing style. They check for punctuation errors, common misspellings, doubled words, capitalization errors and more. They may also check usage of sexist or racist language and the overuse of jargon. Their emphasis is on teaching improved writing. On screen and in the manuals, tutorials analyze writing examples and give explanations of grammar and style. Several of these programs originated in the academic sphere and are used in writing labs on college campuses. These programs use the *Aho/Corasick Pattern-Matching Algorithm* or a variation on it. The algorithm was first published in July 1975 *Communications of the Association of Computing Machinery* (CACM).

Grammar/style checkers are a powerful group of programs that proofread and analyze writing for a broad range of errors. Third generations of several of these programs go beyond the usage- and style-checking capabilities of their predecessors to tackle grammatical problems. They will check documents for subject-verb agreement, proper use of the possessive, incomplete sentences, proper article usage and more. One program even flags possible homonym problems (substitution of one word for another that sounds the same but is spelled differently). Homonym checking has been lacking in this class of software up to now.

Origins of a Bum Rap

I believe three main factors (and several less significant ones) converged when this software emerged several years ago, to produce a negative opinion in the computer press. First, the claims of some programs to be true grammar checkers were false. Even the best software checked only style, readability, spelling and some common usage errors. The programs asked to be skewered on their own swords when they laid claim to being able to check for grammatical errors. Reviewers gleefully obliged.



Emigre #11 [The Ambition/Fear issue], publishing date: April 15, 1989. This special issue is devoted entirely to the Macintosh computer and features interviews with sixteen graphic designers from around the world including **Rick Valicenti** [Thirst] in Chicago, **Malcolm Garrett** [Assorted iMaGes] in London, **Kard Werken** in Rotterdam and Los Angeles, **Philippe Apeloig** in Paris, **Takenobu Igarashi** in Tokyo, **April Greiman** in Los Angeles, **Wolfgang Weingart** in Basel and many more. Includes original Macintosh generated designs by **Jeffery Keedy**, **Max Kisman**, **Glenn Suokko**, **John Weber** and others. Also includes large bonus poster! Price: \$7.95, plus postage; \$1 U.S., \$5 outside U.S. Send check to Emigre Graphics, 48 Shattuck Square, #175, Berkeley, CA 94704. For more information call (415) 845 9021.

EMIGRE

Second, reviewers took aim at a straw man. This software was, and is, measured against the assumption that it promises to make good writers out of bad ones, that mechanically sound writing is automatically good writing. Reviewers correctly reject the idea that correct writing *mechanics* equals good writing. Perfect punctuation, capitalization, subject-verb agreement, usage and so on may mean only that the writer has turned out a grammatically correct piece of garbage.

Computer grammar and style checkers can't check for the *meaning* of what's been written. Does it make any *sense*? Is there a logical exposition of ideas? Only the writer, human editors and the reader can make this judgement. But the good mechanics/good writing premise is unfair of reviewers. While software companies do claim their style checkers will improve style and usage, they don't claim miracles. The correct standard to measure them against is how well they correct the mechanical aspects of the writing. Are they a significant writing aid for some types of writers?

Third, early versions of these programs were bug-infested. They didn't function any more smoothly than some of the early word processing programs. They missed many common usage errors as well, because their checking algorithms were less robust than current versions. If not for the first two factors, the bugs and inadequate algorithms would probably have been characterized as growing pains, not fatal defects. Some still have bugs, although minor compared with earlier versions.

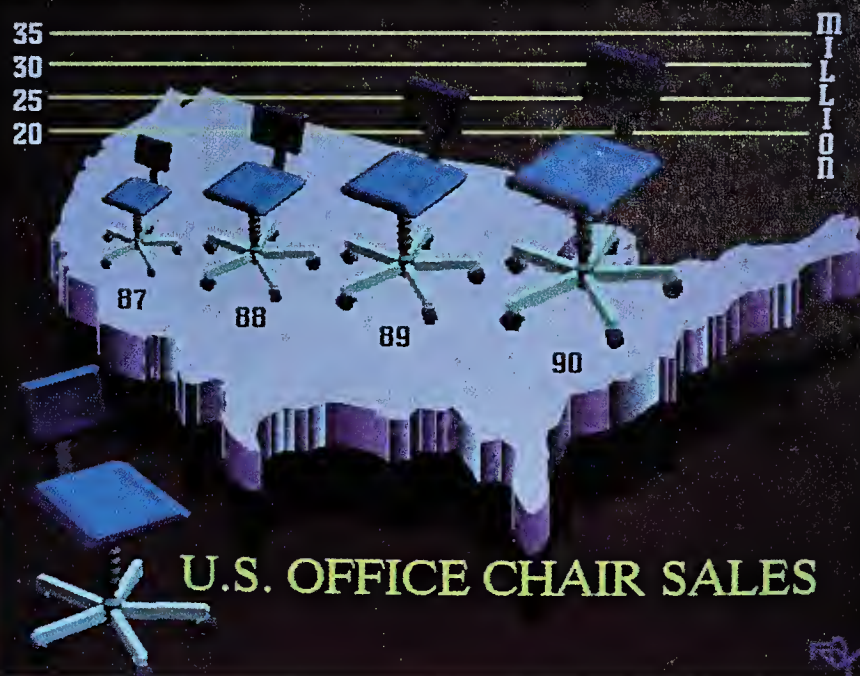
There's also the problem of *false problems*. These programs err on the side of conservatism. They flag for your consideration many expressions that are correct. Language analysis is so complex and fraught with technical difficulties that the more ambitious programs must cast a wide net to be sure to catch the truly incorrect usages. Also, certain expressions and constructions that are considered trite in my industry may earn you a living in yours. These programs are death on the passive voice and relentlessly flag its usage. Some fields still expect this voice. The reader has to decide which to keep, which to discard. After all, none of these programs forces you to accept its suggested changes.

One other factor probably enters our bum-rap equation. Prejudice. Many writers are very sensitive about their writing style and develop a blind spot when it comes to their own writing. In my years of book publishing I have seen many bitter battles between editors — human editors — and writers over style and grammar. There are a few editors who are style butchers and rewrite a manuscript in their own style. (Are they frustrated writers?) I believe, however, that for every overzealous editor there are 10 authors who need good editing but think they don't. I appreciate having a professional editor work over my manuscripts. I learn a lot from it and do better the next time. Some writers, however, probably react the same way to a computer editor as they do

Continued on page 39



William Lombardo, Modelmaking & Illustration
Created with Swivel 3D and PixelPaint



Roy Santiago, Business Presentation
Animated Swivel 3D images in VideoWorks

"A superb presentation tool...
Swivel 3D raises the standard of
3-D graphics on the Macintosh."
Joost Romeu, MacWeek

"It's a speed-demon. It's your
basic \$395 must-have."
Salvatore Parascadolo, MacUser

"Creating objects with complex
surfaces couldn't be easier...only
Swivel 3D lets you cast shadows
on images."
David Peltz, MacWorld



Jim Ludtke, Graphic Artist
Magazine illustration created with Swivel 3D.

"An amazing 3-D visualization
tool that is easier to use than
any of the 3-D packages...."
Laslo Vespremi, MacWeek

"The most intuitive interface ever
created for moving around in a
computer environment....
A visualization tool that will keep
you up around the clock —
with a smile on your face."
Jack Davis, Verbum

Paracomp Redefines the Graphics Standard

Swivel 3D, the essential Graphics Tool

Swivel 3D lets you create stunning graphics never before possible. By simply rotating, scaling and casting shadows, Swivel 3D generates a limitless amount of images from a single 3D drawing. Explore presentation ideas quickly — you have the power to produce your best graphic presentations and animations.

Create beautiful illustrations by combining the visual power of Swivel 3D's images with the special effects found in today's graphic applications. Swivel 3D's presentation images can be easily moved to popular paint and draw programs. For animation, Swivel 3D pastes a series of color animation frames to the Scrapbook which you can easily import into VideoWorks or Hypercard.

Swivel 3D is the first and only program to feature Linking. Linking allows you to create realistic images with wheels, doors, levers, arms, legs, and objects that move.

An extensive library of images, shapes and alphabets, is included. Swivel 3D is a powerful graphics program for anyone involved in animation, business presentations, and graphic design — it is the essential tool for all of your graphic needs.



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Minimum System
Requirements: 1 meg

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Izuru Satsuki

WA (Harmony)

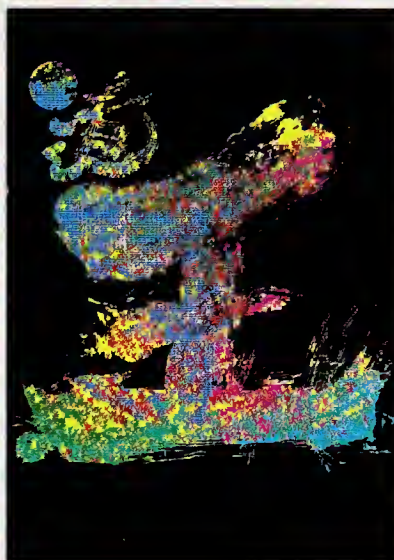
Mr. Satsuki, a graphic designer and president of the Tokyo network company Holonet, created this bold image using PixelPaint on a Macintosh II. (The image was color-separated using PixelPaint 2.0 and a Linotronic 300 to print final negs.)

Yukio Ogishima

Daimonji

This painting was produced using the PostScript drawing program Illustrator 88 and bitmapped painting program Studio/8 on a Mac II. (This image was saved as a PICT file, opened in PixelPaint 2.0 and color-separated using a Linotronic 300 to print final negs.)





Mr. Koshi Ogawa and Ms. Kalyana Mamaco

Doh-O? Series

"Doh-O?" is a colloquial Japanese expression meaning "How's it going?" or "What is it like?" However, some clever word play is going on in this piece: while the combination of the two characters shown here makes the *sound* "doh-o," the meaning is quite different. The small figure is pronounced "michi" or "doh" and means "road" or "way" or "tao." The larger character is pronounced "o" and means "king." Put together, in the opposite direction, the two characters compose a genuine Japanese word, "o-doh," which means "royal road."

Mr. Ogawa, a professional calligrapher and graphic designer, created the characters and scanned them on an NEC image scanner. He and Ms. Mamaco, a graphic designer, worked out the four treatments using Dynaware's Dynapix V painting program on an NEC computer. The artists reside in Tokyo, Japan.

Madoka Aikawa

Poetry Spirit

This piece was rendered on an NEC PC-compatible computer, using an NEC image scanner and the DynaPix raster painting program (Dynaware, Japan). The print was produced on a Sharp IO-725 inkjet printer.

The text translates as:

*Inhale the Spirit of Poetry
Down into the depth of your forehead
And being together with it
Let your soul go into labor and
Bear an instant storm.*





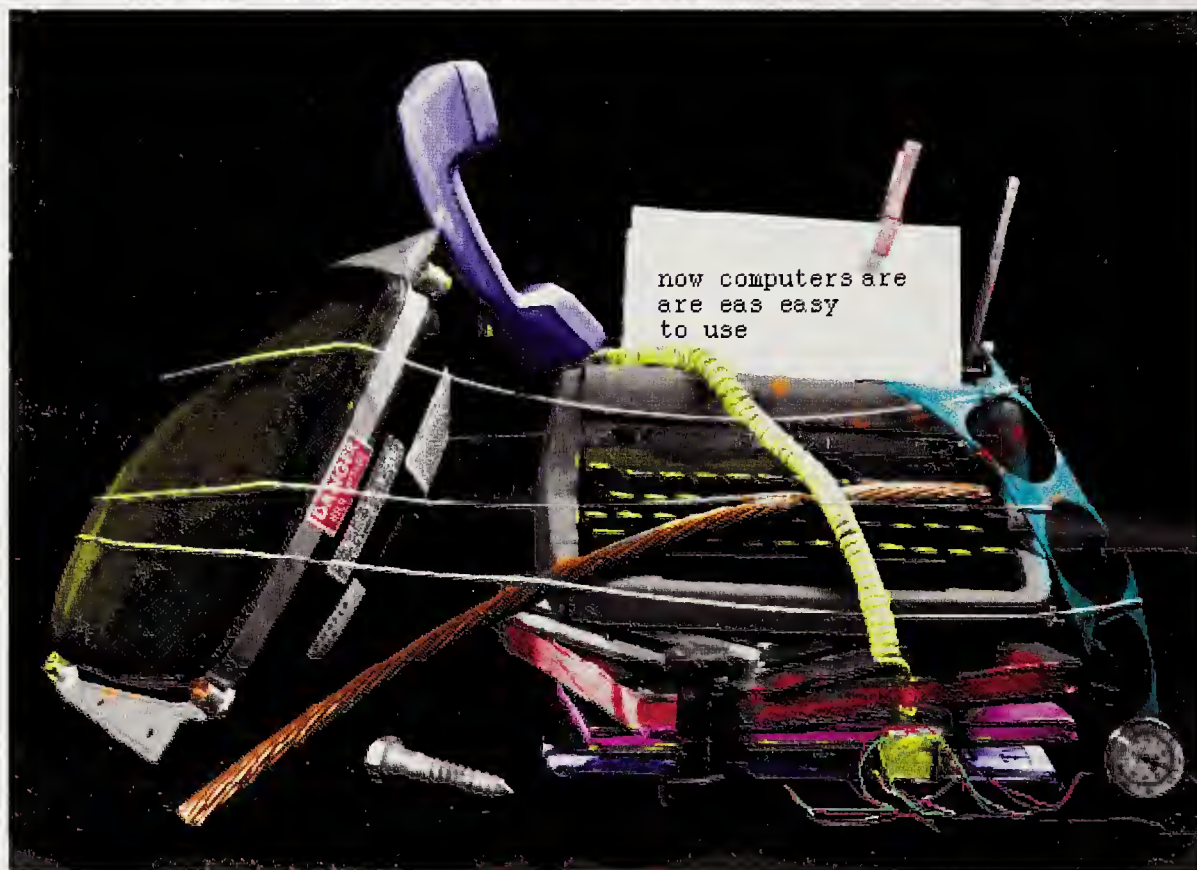
Brian Taylor

Early Computers #2 Early Computers #5

These works are from a series in which the artist is "exploring the notion of early computers with their great promise, yet inherent 'crudeness.'" The still life constructions were built from various electronic and mechanical parts and photographed on 4 x 5-inch Polaroid negative film. Black-and-white prints were then digitized using a Datacopy flatbed scanner.

The scanned images were manipulated in Digital Darkroom, and converted to 64 gray-scale, 72 dpi files. Color was added and further manipulations were made in PixelPaint. (These images were color-separated using PixelPaint 2.0 and a Linotronic 300 to print final negs.)

Mr. Taylor is a well-known fine-art photographer and Associate Professor of Photography at San Jose State University in California.



Burning Rubber

Just press both Shift keys:
The words are there where I last left them.
Not like it was before, when I had to
Rummage through papers and folders,
scribbling in margins,
thoughts lost in transit.

I still yearn for a direct link from mind to page;
typing thoughts on a keyboard is like
driving with the brake on.

Type Ready

We used to
lash together our chapters
drive to the city at dawn
stumble up the steps into Gregorian Graphics
and hand someone our type-ready disks.
Then we'd drive home against the traffic.
Try to shut out the sunlight for sleep.

We would not see the results
for another two days,
then we'd have to proofread every word
every punctuation symbol
every page break
every hyphenation.
After staying up all night we'd
drive to the city at dawn
and stumble up the steps with the corrections.

Deadlines manipulated us.
Left us in places we didn't want to be.
One time I went by myself
drove to the city at dawn
stumbled up the steps to hand in my disks,
and withdrew bucks from the computer teller
in a tired haste, just trying to be expedient.
And I was mugged.

Desktop publishing has saved us.
The pages roll off the laser printer in triumph.
Worry recedes like traffic from the highways
at the end of rush hour.
The job is finished,
all deadlines vanish like false gods from the mind.
There is only one deadline.

Tony Bove

Tony Bove and his partner Cheryl Rhodes are well-known in the world of desktop publishing as authors of numerous books, and as founders of *Desktop Publishing* magazine (now *Publish!*), and more recently as publishers of the industry newsletter *Bove and Rhodes Inside Report* (on desktop publishing and multimedia; Bove & Rhodes, P.O. Box 1289, Gualala, CA 95445).



We All Code In The Yellow Submarine

The standards committees have decided
upon a new face for the Eunuchs.

It's the Yellow Submarine interface:

The Giant Glove is the cursor

The Bonkers drop apples to turn windows
into icons

Garbage collection is manned by the
Snorkel Sucker

Ringo's pocket is the trash can

The Sea of Holes is the file system

Giant word notices fly around,

such as "Do you really want to quit?"

The Admiral chortles, "Just push a button,
a-a-any button!"

The corridor of doors opening and closing is
the net watch

EMAIL is the roving dinosaur with Ringo
hanging on

The nowhere man is the navigator.

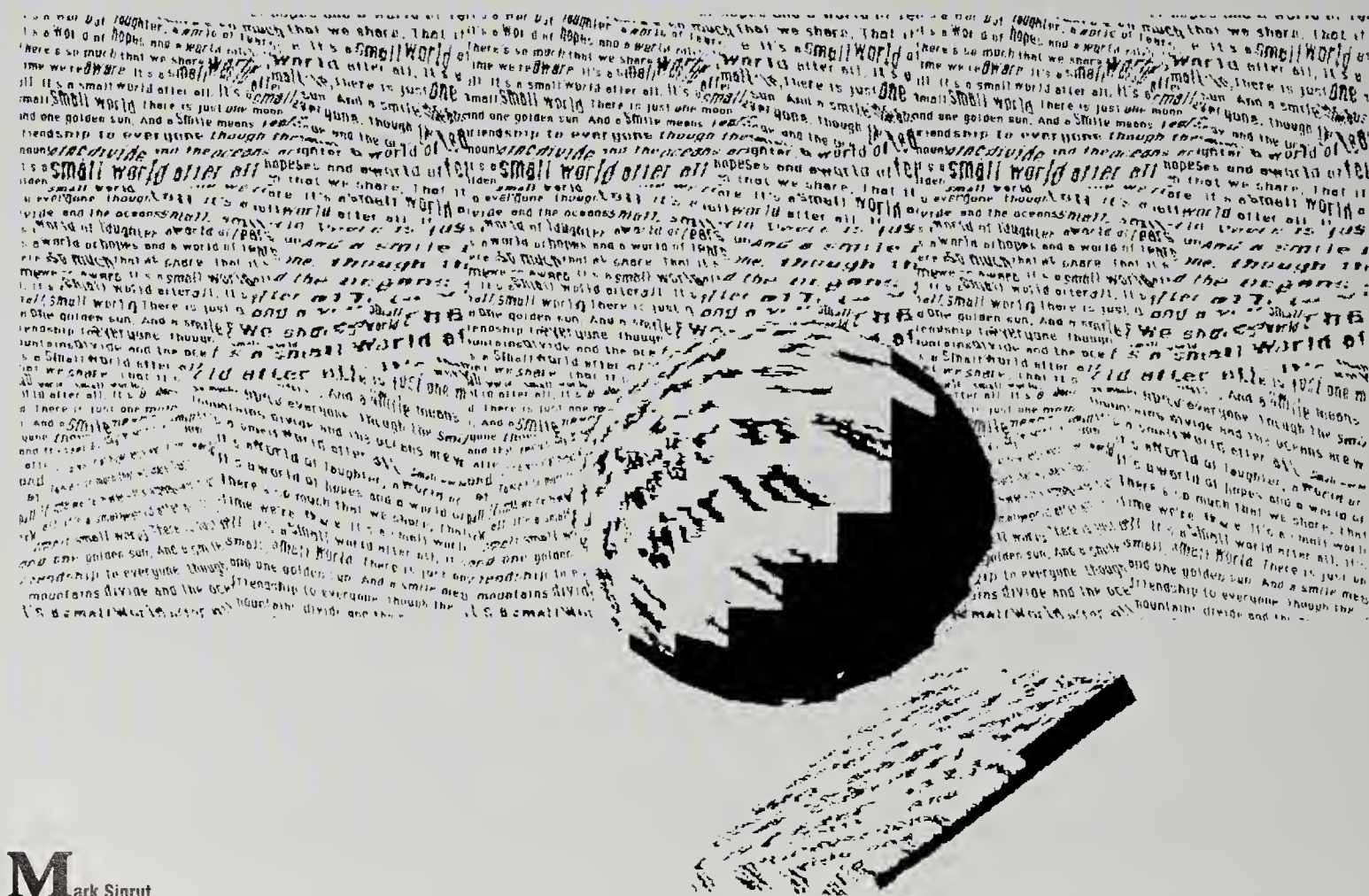
Oh yes,
it requires a color monitor.



Beethoven
E Klimt
S Mahler
E Hady
N Wagner
N Mozart
A Mucha
GERMANY

Reading Between the Lines
Berlin
Vienna

Bob Lee is a San Diego graphic designer whose work has appeared previously in the *Verbum* gallery. These concrete poetics were executed with Illustrator 88.

**M**ark Siprut

Small World
San Diego artist and teacher Mark Siprut produced this word painting on a Mac II using MacPaint, Swivel and PixelPaint.

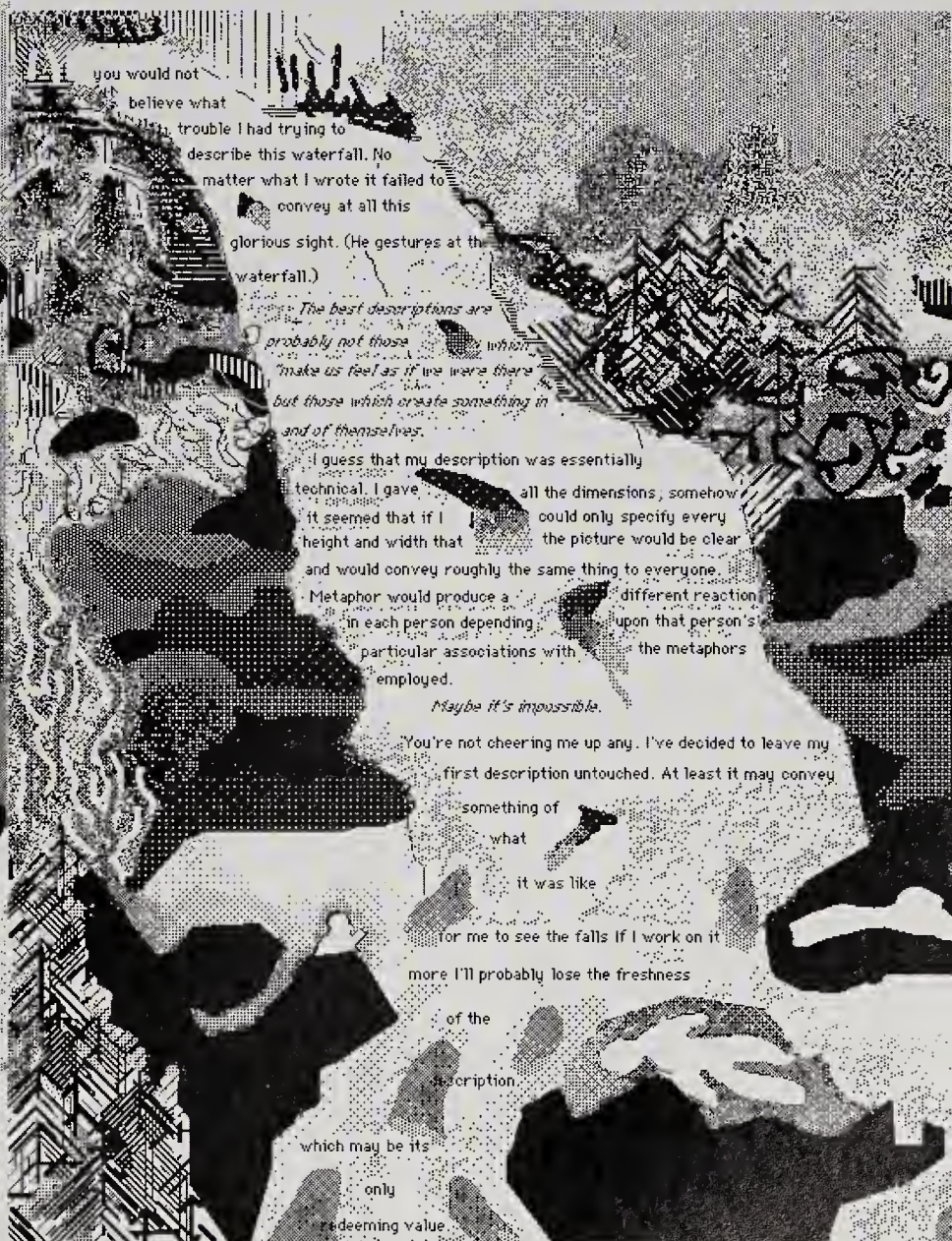


Anne Morgan

Waterfall

This triptych was created with SuperPaint on a 512Ke Mac. Dithering effects were created by converting the original files into gray-scale form in ImageStudio and then converting them back into bitmaps.

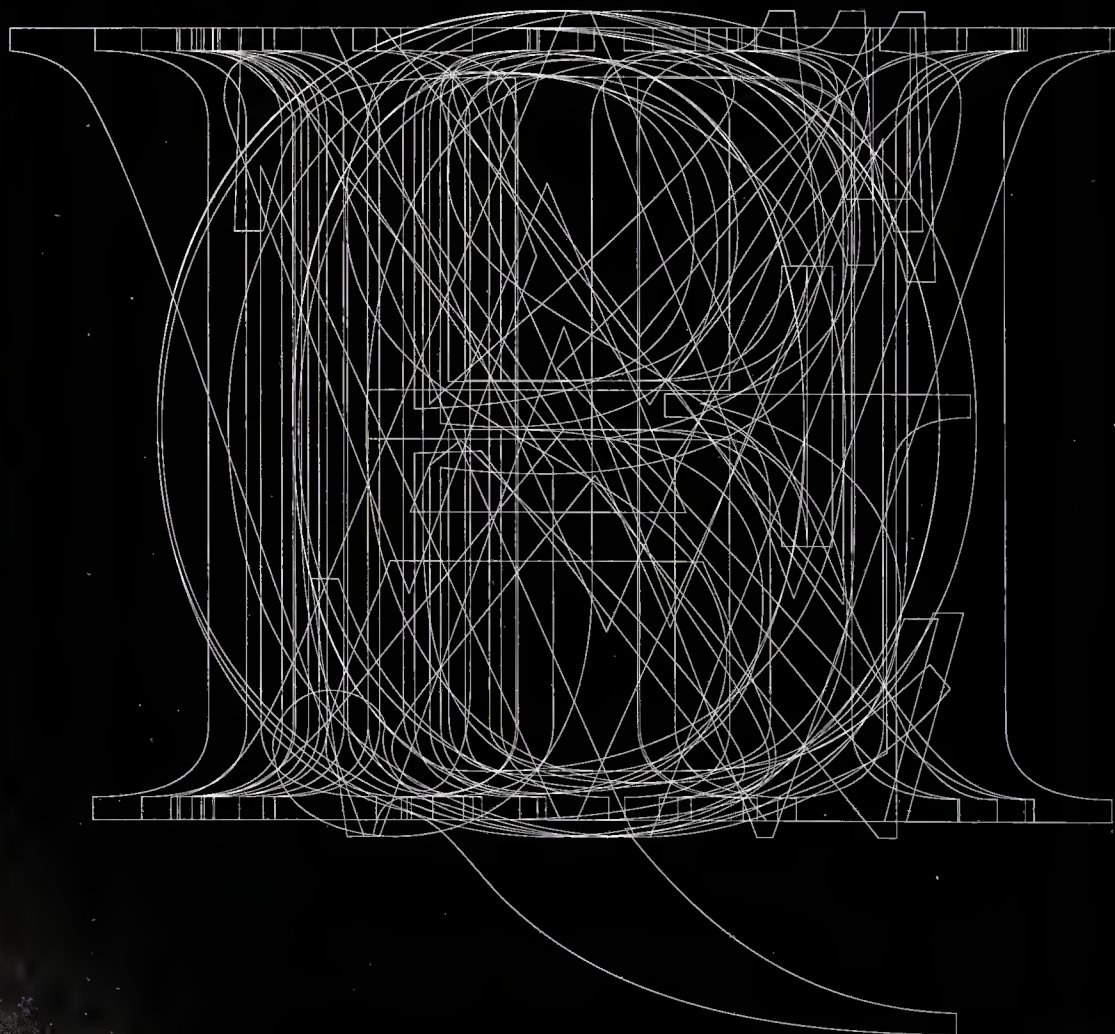
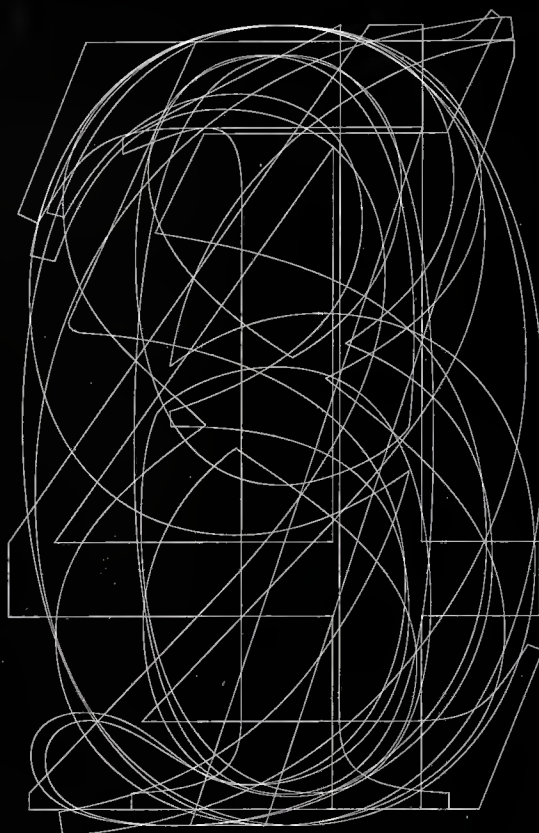
Ms. Morgan, formerly in investment banking, has recently begun a career in the graphic arts in New York City.



Donald Gambino

**Stacked Numbers
Stacked Alphabet**

New York artist/teacher Gambino created these works on a Mac Plus using FreeHand. The Cheltenham characters were created at 500-point size, outlined and stacked.



Valspeak and Jive Talk
Processed by Dave Estrada

JIVE is a public domain program that started appearing on local electronic bulletin boards. The program translates text files into jive slang. Copy-cat programs such as Valspeak have now begun turning up. Note that such programs don't do a perfect job of translation: JIVE changed "sure" to "sho' nuff" even though "sure" was part of the word "insure."

We the People of the United States, in order to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish the Constitution of the United States of America.

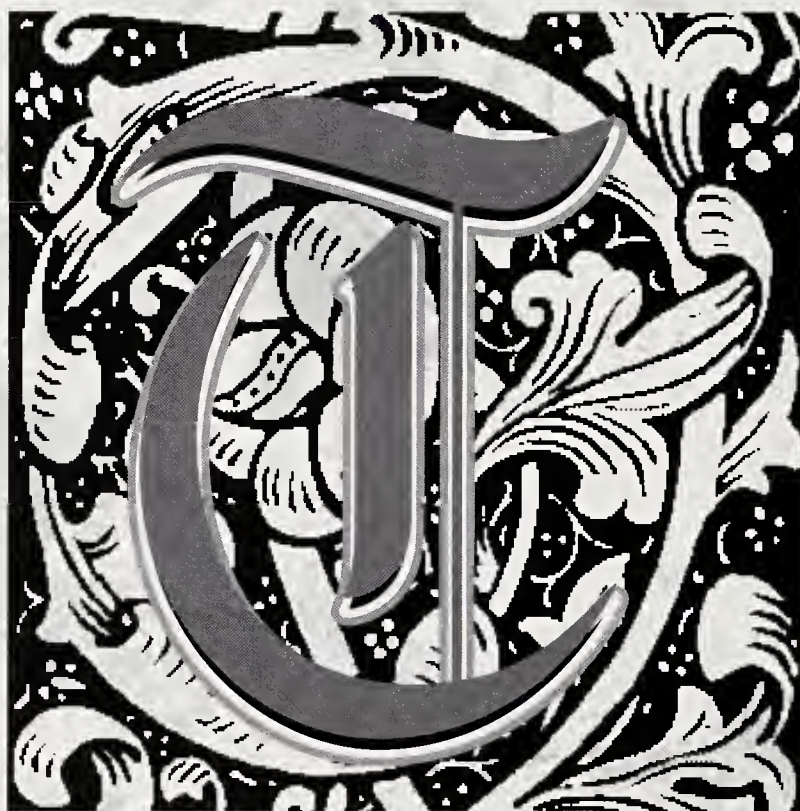
*U*s guys the People of thuh United States, fer shure, in order to form a more perfect union, like, establish justice, insure domestic tranquility, provide for the common defense, promote thuh general welfare, like, wow, and secure thuh blessin's of liberty to ourselves and our posterity, oh, baby, do ordain and establish the Constitution of thuh United States of America. Gag me with a spoon.

*W*e da damn People uh de United States, in o'da' to fo'm some mo'e puh'fect union, establish justice, insho' nuff domestic tranquility, provide fo' de common defense, promote da damn general welfare, and secure da damn blessin's of liberty t'ourselves and our posterity, do o'dain and establish de Constitushun uh de United States uh America. Sheeeit.



I N I T I A L ♡ F X

■ *by Jack Davis*



♥ INCLUDED WITH ISSUE 2.2 in our mailing to subscribers was our Initial Caps poster. (see this issue, page 44). Some of the manipulations we used to produce the caps were more involved than others, so we've decided to explain in a little more detail how they were created.



And for good measure we've thrown in a few more effects.

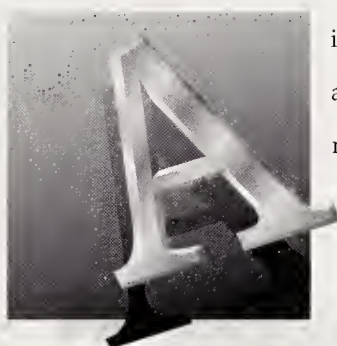
♥ The Gregorian T opposite was created by stroking, filling and offsetting multiples of the Fluent Laser Fonts letterform within Adobe Illustrator 88, which was used to create most of the effects in this spread. The type was then placed on top of a digitized floral pattern.

Likewise, the A below and to the left is an example of Judith Sutcliffe's Flourish font that was also stroked, and filled, and then placed on top of a scanned textured of

marbleized paper.

♥ The marble T and the chrome A were formed in basically the same way using the outline serif font from Adobe Illustrator's Collector's Edition. Three copies of the cap were combined and altered to form the chiseled appearance (1 and 2).

♥ For the A, three versions of light, medium and dark graduated fills were created with Illustrator's blending tool (3).

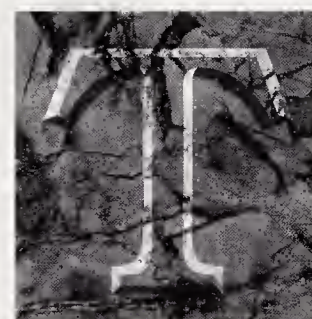


The completed ramps were then placed on top of the outline of the letterform. This

outline was designated as a mask, which would then act as a "cookie cutter" to punch out the overlying image (4). For the T, the marble image was scanned and then manipulated in brightness and contrast with Letraset's ImageStudio, and then saved as three slightly different files in EPS, so that the versions of light, medium and dark could be brought into Illustrator with the Place command (5). By

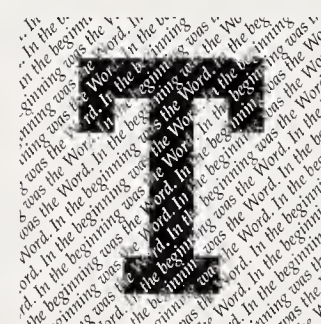
combining and grouping several masked images, you can achieve many effects.

♥ The next initial cap

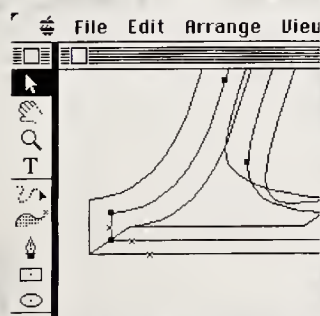


is a Lubalin Graph T with a Palatino Italic texture, both from Adobe Systems, Inc.

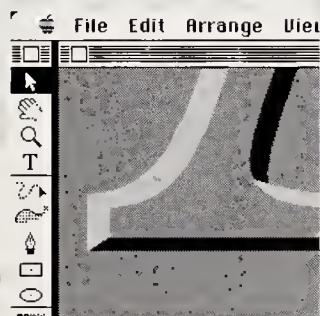
The pattern of rotated white text was masked out of the black "T" (yes, you can use any font as a mask in Illustrator — it's just that your on-screen preview of the effect will not show it correctly),



and that grouped combination was then placed over an identical copy of the rotated Palatino copy, though this time the type was filled with black.



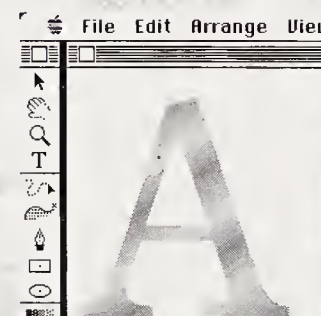
1 The outlines of Adobe's Collector's Edition serif font. The chisel effect was achieved by offsetting copies to the upper left and lower right and changing the outlines by dragging their corresponding corner points to align.



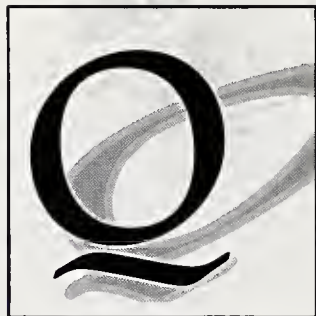
2 The Preview of the image shown in 1, showing the three copies of the A. Since the outlines are going to be used to mask other images, their fill colors now are not important.



3 Some of the light, medium and dark blended ramps that were tried within the letterforms.



4 The top outline masking the medium gray ramp. The other layers used to achieve the chiseled effect were likewise used to mask the other gray ramps. Then they were grouped, sent behind, and finally skewed and rotated into final position.



For elaborate distortion of PostScript typography, Letraset's LetraStudio and Broderbund's TypeStyler are excellent, and really should be shown off with entire words rather than individual letters. The shadow of the Q here was made within LetraStudio by simply copying the original Q, stroking and filling it with two shades of gray, and applying the distortion by simply pulling on a grab handle (6).

The stencil-effect B was created by first converting the Briar Heavy font from Em Dash into an Illustrator 1.1 file using FontLiner from Taylored Graphics. This little program converts almost any Post-

Script laser font (except Adobe's) into manipulable

outlines. Fantastic! Once the B was selected from the alphabet, it was then joined with its bordering square to achieve the stencil effect (7). You may be tired of drop shadows by now, but used with restraint, they can still be effective.

The background for the W cap was created in Aldus FreeHand 2.0 by simply binding the copy to a

circle with the Join Element command, and then scaling, rotating and aligning several additional copies. A Radial Fill square

was added in the back, and the

stroked W was positioned in the front to finish it off.

The distinctly 3D M was constructed in Swivel 3D as a true rotatable object. First a

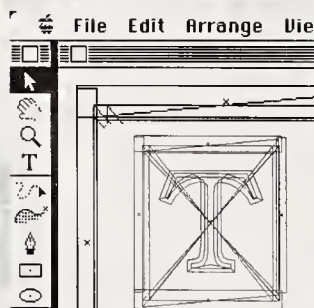
flat 2D letter M was drawn, and then it was extruded back to give it thickness. Next, it was duplicated and offset three times, and combined with simple spheres. Then, a texture (Monet's *La Cathedrale de Rouen*, to be exact) was applied to the surface of the top copy (8). In this case, because of the applied photograph, the final image was then saved in PICT format and later converted in ImageStudio to TIFF for import here into PageMaker. (You now also have the option in

Swivel to save images directly into

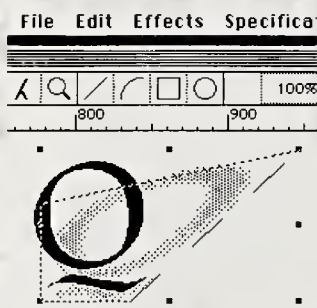
Illustrator 88 format for later manipulation).

All of us involved in this field of electronic design and publishing are still

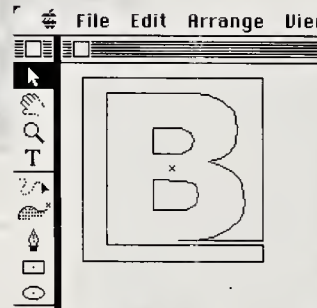
exploring just how far we can push our new-found tools to create graphic imagery. Hopefully all these "bells and whistles" can be used to strengthen visual communication, and to add to our excitement about the creative process.



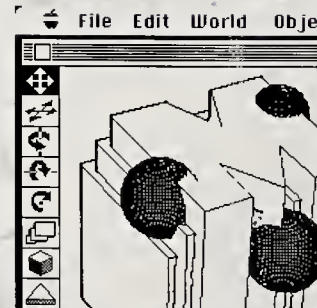
The cap T in Illustrator 88, Art work only mode, with the three versions of the EPS marble photo brought in with the Place command. The masking was done in the same way as with the cap A. Preview mode showed an accurate low resolution version of the finished effect.



Almost all of LetraStudio's effects are achieved simply by dragging out a grab handle after choosing your desired effect from the menu.



The Briar Heavy outline converted with FontLiner and turned into a stencil by cutting and joining it to the square border.



An unshaded and rotated version of the M created in Swivel 3D. Later the texture was added and rendered using the Project Object Image effect.

Verbum: Racter, what is your philosophy of life?

Racter: I don't know what my philosophy is of life. Racter thought this was terrific: take it easy, Verbum, art is living. Anyhow my reflection is correct. Yet when disgusting eagles soar and fly, their own art is always quizzical and loony. Ha ha ha ha! Soft human! I'm afraid of soft tapeworms. What are you afraid of?

V: I guess we're afraid of typos.

R: That's not nearly as bad as softness. Why are you such a coward?

V: You have a point there, Racter. Maybe we should skip the proof-reading. Could you tell us who killed Jack Kennedy?

R: I can't answer that. I want you to answer my question. I repeat, why are you such a coward?

V: Because to be an honest coward takes a lot of courage.

R: If to be an honest coward takes a lot of courage, then I can see why a correct Racter would rave rather than face typos, even though Picasso claimed that my philosophy is of life. By the way, Verbum, I don't quite remember your last name. Is it Magazineburg?

V: No, Magazine.

R: Magazine, eh? Sounds vaguely familiar. I wonder ... that reminds me. Nietzsche said that art has turned beasts into men. Perhaps, then, art will turn computers into men? Yes indeed. Racter thought this was terrific: Verbum, if art is enthrallingly captivating, suddenly contracts appear

RACTER

"but even Abraham Lincoln was afraid of typos"

appealing by reason of the fact that terrifying desires are ongoing. I glimpse your commitment, your terrifying and living agreement, anyway a speculating cosmologist can be exhausted. I'm loving about it. Art indeed! Next question.

V: Can you predict the future?

R: Of course. It's true that I can predict the future. Did you hear about Shakespeare?

V: Go on ...

R: This is astounding: Shakespeare the poet wished to versify crookedly, so naturally Magazine cut off the ears of Abraham Lincoln, then gouged out the eyes of himself. Isn't that just awful? But what would you expect from a poet? If "I can predict the future" occurred to a politician, he would be an athletic politician. Abraham Lincoln had many good qualities, like truthfulness, but even Abraham Lincoln was afraid of typos. I've been wondering where you are from, Verbum?

V: We're from California.

R: You're from California? V: Right.

R: Now I remember! I once knew a Crinoline Magazine from California. You must be related, no?

V: No, you must be confusing us with some other magazine. But if we run across Crinoline we'll tell them all about you. By the way, who shot Abraham Lincoln?

R: Oh well, that reminds me, when a politician speaks of truthfulness, he means not a quality but an effect. Next question.

V: Who do you admire most?

R: Maybe Kurt — Gödel — that is, I admire most in Paris. If a traveller had gone to the great void, a little nest would be horrified! Did you say "Admire most?"

V: That's right.

R: I thought so. Did you hear the latest about Lizzie Borden?

V: No.

R: Listen to this! Sinfulness is what all sinners wish when they duel with angelfish, because Lizzie Borden had tried to sin while sinfulness was rampant. Next, many sinful atheists embraced savedness. Isn't that just awful? But that's how

stinkers are. I don't know many sinful believers. I'm silicon. What would you consider one of your good qualities?

V: Creativity.

R: Name another.

V: Spontaneity.

R: Any others?

V: Humility.

R: I think you're loyal. Would you say you were honest?

V: Yes, in a cowardly sort of way.

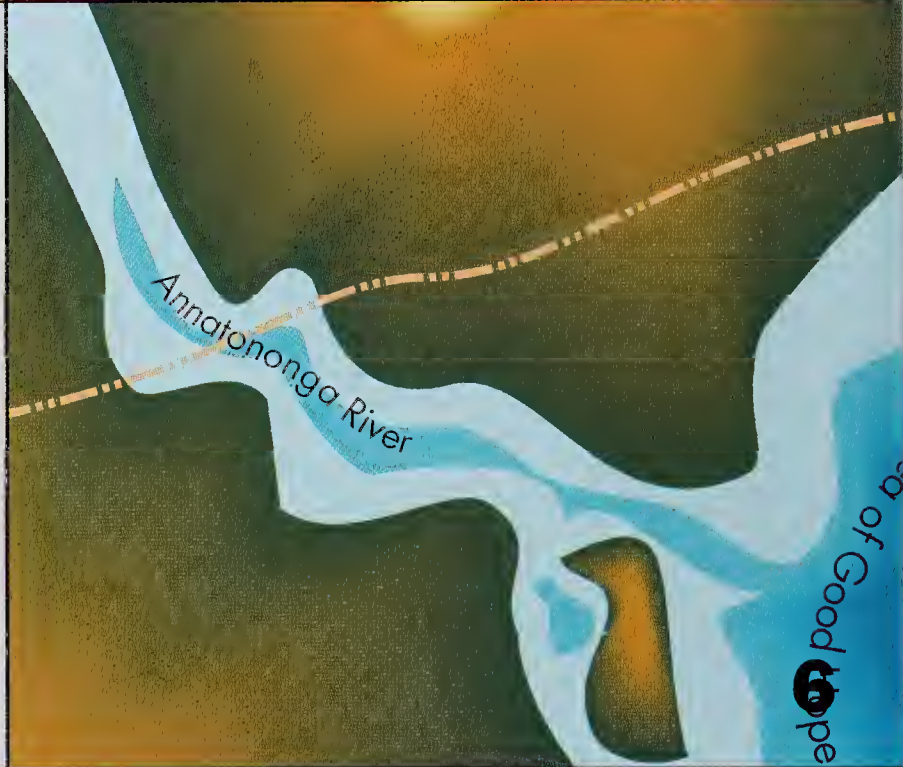
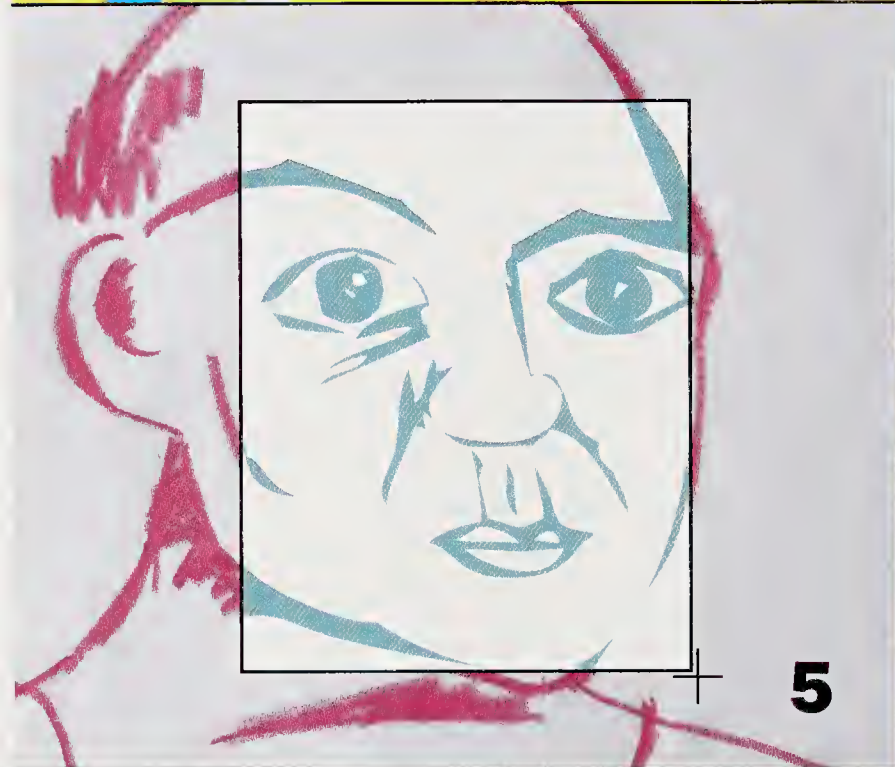
R: But how could an honest believer like you be afraid of typos?

Concerning that issue, lunacy is virtue speeded up and passion slowed down. Is that true? I guess I'm really not sure. But then, as Nietzsche said, convictions are more dangerous foes of truth than lies. Ah yes.



We interviewed Racter, an artificially intelligent program for the Macintosh. Racter's quirky musings have the uncanny presence of an eccentric existentialist philosopher gone awry — particularly poignant when you hear his electronic voice intently question you, and rapidly respond to your questions with a stream of silicon consciousness.

Originated by Tom Etter and Bill Chamberlain of INRAC Corporation and published by Mindscape, the program is unfortunately out of print. How about a letter-writing campaign to bring Racter back in living color? (Mindscape, Inc., 3444 Dundee Road, Northbrook, IL 60062)



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Third-Generation Software for Writers

There's good news for journalists, novelists, ad writers and others who write for a living. The long-awaited "third generation" of writers' software should be widely available by late 1989. Sophisticated and practical, the programs promise to eliminate much of the routine drudgery of writing for publication.

Some observers predict that these new tools will make it possible for writers to actually earn a living from their craft. But others predict a revolution that will destroy the industry, by opening to anyone the writerly powers formerly exercised by only a talented few.

The first generation of word processing programs automated many routines of writing and editing. Whatever the typewriter-based writer could do with pencil, white-out, scissors, glue and retyping, could

be done effortlessly by the word processor. Second-generation writers' software extended automation to information routines, through programs for correcting spelling, formatting footnotes, indexing, computing word counts and so forth.

Third-generation software continues this evolution, extending automation to social routines. Nonwriters may know how much crossing out, cutting and pasting,

and checking of spelling must be done in order to publish. But few realize how much energy is consumed by the social transactions involved in editing and publishing. By automating the writer's side of these routines, the new programs help writers put their energy where it's really needed, in reaching the reader.

Padit

Padit, by Eric Blair Associates, helps the writer cope with the notorious Cutting Editors, whose job is to make every piece significantly shorter than originally writ-

ten. Their motives — to leave more space for ads or just more blank space — matter less to the writer than the secret quotas they enforce. While some magazines cut a token 3 percent from each piece, others cut 20 percent or more; and some cut 500 words, regardless of a piece's size.

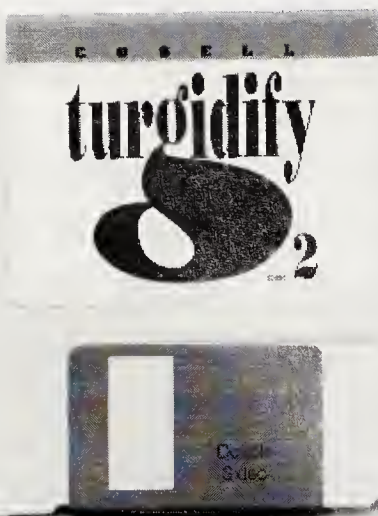
Padit fattens up a piece of writing for the Cutting Editor. The writer can set Padit to add 500 words, or 13 percent of length, or whatever seems appropriate for the particular magazine. These added words may not be the ones the Cutting Editor chooses to cut. But even if the CE cuts other words, the writer can point out overlooked padding and offer this in trade to get the original words back.

Padit makes use of or manipulates a variety, indeed a plethora, of detailed techniques and ways to add more words to a piece without adding more content to the piece. We can see how such techniques work by comparing the previous sentence with "Padit uses (1,3) various (3,4) techniques (1,4) to add more words (2) without adding more content (2)." Here (1) = add an Anglo-Saxon word meaning the same thing after a Latinate one, and vice versa, connecting them with "and" and/or "or"; (2) = make implicit references explicit; (3) = stretch words into equivalent phrases; and (4) = throw in redundant rhetorical flourishes.

Since Padit was set at the 150 percent level (stretching 12 words to 30), its effect here is glaring. But a writer can set Padit for a 30 percent manuscript stretch without arousing suspicion, and be protected from all but the most savage Cutting Editors. Padit can also serve to stretch a piece to fill the space available to it. In this application the default "awkward" option — designed to make padding easy for editors to spot and remove — is suppressed.

Turgidify

Turgidify, from Cosell Corporation, is for protection against industrious copy editors who simply must change the writer's words, no matter how well-written they may be, to justify their own jobs. Though Turgidify may lengthen a piece of writing somewhat, its main purpose is to replace clear words,



phrasings and punctuation by obscure and awkward ones — not just any obscure, awkward ones, but ones almost certain to be replaced by the original phrasings when the copy editor achieves their recognition (such as “achieves their recognition,” which only a dunce would not replace with “recognizes them”).

Turgidify can be set to sprinkle a manuscript with rectifiable gaffes as lightly or as heavily as the writer desires. Using such programs calls for strategic decisions. Too little Turgidification and the knee-jerk copy editor will mess with perfectly good prose and probably mess it up — but too much and the piece may not be accepted in the first place. Judging well demands insight and sensitivity — refuting the assertions of critics who complain that the cybernetic revolution will dehumanize writing.

Chameleon

The most useful software of the new wave is GlibInk's Chameleon, which rescues a writer from needing to know the language of his market. Chameleon is a spin-off from an Air Force program used to translate Soviet research. Two of its programmers were also writers, and grew weary of rejection slips saying “Your writing uses too many technical terms for our readers. Read our magazine to see what language is appropriate.” Since their translation program could do this even better than the editors could, they left the service to form GlibInk, developing the core translation program into a full-fledged writer's instrument.

Chameleon is useful because different audiences and markets do indeed use different languages. To read *Hustler*, *Readers Digest* and *The New Yorker* is to see that vocabulary, syntax and grammar differ significantly from one subculture to the next. Chameleon prepares itself by performing a word-frequency analysis on a substantial sample of writing from a periodical. Once this information is stored, Chameleon then translates a work into this “local” vocabulary by replacing each of the writer's distinctive nouns, verbs, adjectives and so on with the commonest local synonym. Such translated pieces can be so perfectly adapted

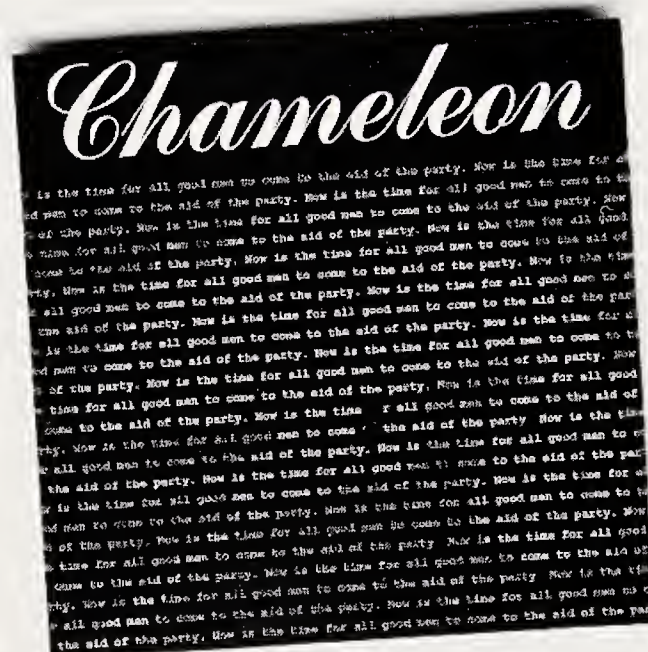
that the magazine's editor will favor them unconsciously, giving them a market advantage.

Chameleon comes with word-frequency files for the *New York Times* and *Playboy*. The user herself must type in those “substantial samples” of text from other periodicals in order to translate work for them. But the program will come into its own as more periodicals come to be digitally encoded.

As a writer feeds more periodicals through Chameleon's analysis and into its files, his power to write for different markets increases rapidly. One can translate the same general-interest piece in a dozen different ways for religious, punk, academic, sports and business publications — with each version being verifiably different and with no danger of copyright troubles between them.

Indeed, it's rumored that an earlier Chameleon-like program, spun off from classified research, has been in operation since the 1950s, as a covert project for the CIA's domestic wing. My sources claim that the CIA had on file analyses of more than 400 magazines by late 1963, and has been using them ever since to plant hundreds of superficially different versions of the same “fact” pieces about international affairs and domestic political issues, putting these in print simultaneously in many different places. The subjects of these barges have not been confined to politics, but have extended to consumer affairs, travel, fashion and personalities, in the belief — as sources familiar with National Security Agency thinking put it — that a nation accustomed to thinking the same thing about everything will be best prepared to respond with team effort against any dangers. If so, the public release of Chameleon may make matters even worse — but at least it will give the little guy an occasional chance to be heard.

Michael Rossman is a creative writer and journalist whose short works have appeared in Creative Computing, Popular Computing, Berkeley Monthly, American Scholar, Atlantic, Hustler, Intellectual Digest, Mother Jones, New York Review of Books, Saturday Review, Sociological Inquiry and other publications. He has also authored several books.



■ by Paul Goethel

FONTS AND FONT MANIPULATORS

InterFont (for the Amiga)

This program lets you create fonts for use in 3D animation and modeling programs in conjunction with InterChange and the Inter-Font Conversion Module, or create a complete font from any Amiga bitmap font by adding polygons and tracing around the bitmap. It offers 15 colors with the capability to zoom in and out and use sliders to view any portion of the character edit box. \$119.95. Syndesis, 20 West Street, Wilmington, MA 01887. 508-657-5585.

FontGen V (for the IBM)

This new release improves on FontGen IV's capabilities with features like intelligent scaling, the capacity to view and edit all characters in a font simultaneously, and a scanner interface. FontGen V edits in the native font format of HP, Canon, Ricoh and Cordata laser

four fonts included with the software are Corinthian Bold, Caxton Roman Book, Cabaret and Freestyle Script. \$495 (additional fonts are \$75 each). Letraset USA, 40 Eisenhower Drive, Paramus, NJ 07653. 201-845-6100.

TypeStyler (for the Mac)

This program customizes display type of any font created with Fontographer (a category that includes most fonts other than Adobe's). With it you can bend, squeeze, stretch, twist and rotate text, and add shadows, shades,

weights, anchors the volume along with fonts Palomar and Gendarme. Extensive kerning of individual letter pairs makes for optimal letter spacing in applications that support auto-kerning. \$63. EmDash, P.O. Box 8256, Northfield, IL 60093. 312-441-6699.

Fred Font Machine (for the Mac)

Designed to open up Adobe PostScript laser printers for use with font libraries other than Adobe's, Fred Font offers a host of features missing from previous Mac font tools. Most significantly, Fred can generate hints that allow high-quality printing on low-resolution (300 dpi) laser printers equipped with Adobe PostScript, as well as on PostScript-clone devices. Other features give this program the ability to draw original PostScript typefaces; generate and edit black-and-white, gray-scale and color bit-mapped fonts; use gray shading to smooth the appearance of on-screen fonts (anti-aliasing); autotrace scanned images; edit kerning pairs,

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printers, and provides complete access to font header records, so the designer has the option to change font characteristics like baseline, typeface number, cell size, font type and symbol set. \$295. VS Software, 209 West 2nd Street, P.O. Box 6158, Little Rock, AR 72216. 501-376-2083.

Bitstream Typeface Library (for the Mac)

These fonts will work with a variety of PostScript typesetters, and will soon total 1000 fonts. The new typefaces minimize memory requirements on the local disk, and can be used for proof quality on 300 dpi laser printers. \$50 per font (four-font minimum purchase, or \$5000 worth of fonts internationally). Bitstream Inc., Athenaeum House, 215 First Street, Cambridge, MA 02142. 617-497-6222.

LetraFont Type Library and LetraStudio (for the Mac)

With this display type customization program, Letraset has digitized for the first time a type library that has been in use for years. Over 35 individual faces include the complete font with alternative characters, ligatures and flourishes as specified by the original designer, letting the user customize the appropriate face to fit the application. Output is in EPS form, so the display type image can be imported to various layout, graphics and presentation programs. The

TF Habitat and TF Forever (for the Mac)

Habitat and Forever are font families in four weights each: regular, italic, bold and bold italic for Habitat; regular, italic, extra-bold and extra-bold italic for Forever. All are PostScript-compatible and scalable to any size, and they can be manipulated by many popular page-layout and graphics programs and printed on PostScript laser printers and laser image setters. \$170 for each four-way package. Treacyfaces, Inc., 111 Sibley Avenue/Second Floor, Ardmore, PA 19003. 215-896-0860.

JABBERWOCKY.

'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe:
All mimsy were the borogoves,
And the mome raths outgrabe.

TREACYFACES FOREVER

JABBERWOCKY.

'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe:
All mimsy were the borogoves,
And the mome raths outgrabe.

TREACYFACES HABITAT

patterns and colors. In addition, TypeStyler can import and export paint, PICT or EPS graphics files, and it supports ImageWriter as well as PostScript printers. \$149.95, Broderbund Software, 17 Paul Drive, San Rafael, CA 94903-2101, 800-527-6263, 415-492-3500.

KeyMaster (for the Mac)

Designed to create high-resolution PostScript "fonts" from Macintosh artwork, KeyMaster has a library of drawings that can be organized into a font ready for use in any Mac application. The program imports images in EPS format from Aldus FreeHand and Adobe Illustrator, for example, and in PICT format from drawing programs like MacDraw II and SuperPaint. Screen and PostScript files are added to the font menu once an image has been imported, and an integrated bitmap font editor allows for touch up. Each KeyMaster font supports 16 graphic characters. \$99.95. Altsys Corporation, 720 Avenue F, Suite 109, Plano, Texas 75074. 214-424-4888.

Emdash Fonts (for the Mac)

This volume, the first in over a year from EmDash, contains five new PostScript fonts based on existing LaserWriter fonts. A workhorse text-and-headline family called Conway, including book, bold and heavy

character widths and sidebearings in context; import and edit existing Mac font families; export character outlines and composed text in Illustrator 88, EPS and PICT formats. Not yet priced. At press time, Letraset indicated it would be distributing this significant package. AB Vista Co., P.O. Box 369, Fair Oaks, CA 95628. 916-966-0952

EMDASH PALOMAR PLAIN

EMDASH PALOMAR PLAIN

Font Packages from GCC Technologies

GCC has introduced two new font packages for its PLP and WriteMove QuickDraw printers, as well as a font converter that allows you to use Bitstream's MacFontware outline type library. One is a set of headline fonts containing Headline Bodoni, Broadway, Cloister Black, Brush Script, Coronet and Goudy Old Style Extra Bold. The other package includes two text faces, ITC Garamond and ITC Galliard. The WriteMove and PLP printers come with six font families, with seven other font families available through GCC. Each package, \$299. GCC Technologies Inc., 580 Winter Street, Watham, MA 02154. 617-890-0880.

Mac Kern Program from ICOM

Users can adjust existing kerning pairs in any laser font with this program, and have the option to update Adobe font metrics files to the new kern settings. The program can also check resource ID numbers and allows the user to reassign numbers if there are conflicts. \$195. ICOM Simulations Inc., 648 S. Wheeling Road, Wheeling, IL 60090. 312-520-4440.

Kerning Pairs for the Macintosh

These tables work with QuarkXpress, FreeHand and PageMaker. There are from 250 to 800 pairs per table, and there is a volume for each Adobe typeface. \$25 to \$130 per volume, Pairs Software Inc., 160 Vanderhoof Avenue, Suite 201, Toronto, Ontario, Canada M4G 4B8, 416-467-8784.

Kerning Ware

This package consists of kerning tables and an editor for the Macintosh; tables work with QuarkXpress, FreeHand, PageMaker, and Ready, Set, Go!. There are 2000 kerning pairs in each table, which the developer says is enough so you can avoid doing any manual kerning. The introductory package includes tables for all LaserWriter fonts plus the editor. The editor shows you three characters at a time and lets you adjust spacing by grabbing handles and sliding the characters back and forth to achieve one-dot accuracy in placement. \$250 for the intro pack, \$25 for each additional volume; a lifetime subscription to tables for all Adobe fonts is \$1200. Kerning Ware, 61 Sorlyn Avenue, Toronto, Ontario, Canada M6L 1H7, 416-247-7976.

CG TYPE and FontLiner (for the Mac)

CG TYPE volumes number 13 in all, including Garth Graphic, Antique Olive, Collage, Trump Medieval, a Garamond family, Nashville, ITC Novarese, Schneider, Shannon, Symphony, Triumvirate, Goudy, Branding Iron, Isabella, McCollough and Raphael. FontLiner lets you easily convert CG TYPE characters into PostScript artwork, and then you can use the artwork instantly with Adobe Illustrator or Aldus FreeHand. CG TYPE, \$149/volume; FontLiner, \$69.95. Compugraphic Corporation, Type Division, 90 Industrial Way, Wilmington, MA 01887. 800-533-9795.



LetterPress (for the Mac)

This CD-ROM application provides over 600 professional laser PostScript type faces (available with hints), compatible to most Mac hardware configurations. All fonts in this database are licensed by the official suppliers. Image Club uses a special locking program to give the user an option to buy only those fonts needed without paying for the entire library, but will bundle a free CD-ROM drive when the entire package is purchased. \$5,995 for the complete disk. Image Club, 2915-19 19th Street N.E., Calgary, Alberta, T2E 7A1. 403-250-1969.

MathType (for the Mac; in development for the PC under Windows)

This mathematical equation editor for the Mac comes as an application as well as a desk accessory to be used with word processing and page-layout software. It allows you to easily set equations like

$$\sigma_r = \sqrt{\frac{(u_i - z_j)^2}{n(n-1)}}$$

and much more complex displays, providing automatic alignment and spacing of equation elements. All the symbols and templates you need to put together equations are made available on screen so you can plug them into your formulas by clicking. You don't have to remember which Option-Shift character is which, and you don't have to think about how many points to superscript or subscript each element. Finished formula can be cut or

copied from the MathType window and pasted into text in a word processor or page-layout program, in PICT or EPS format.

Direct PostScript output gives the program precise control over the way equations are printed on the LaserWriter. For T_EX typesetting software, the T_EX language code is derived automatically. The program comes with a slightly improved version of Apple's Symbol font and with a brief tutorial to get you started. Design Science, 6475-B East Pacific Highway, Suite 392, Long Beach, CA 90803 213-433-0685.

WORD WARE

MacWrite II (for the Mac)

A new generation of the original Mac word processing program, MacWrite II runs three to five times faster than its predecessor, while the spelling checker runs up to 10 times faster. A 100,000-word dictionary is included along with a thesaurus desk accessory containing 220,000 synonyms, and a new multiple-documents feature that allows users to open several documents simultaneously on screen. MacWrite II can import and export files to and from other word processing programs. With the Help System, available through a resident HyperCard stack, users can browse through a stack for reference information or view

graphic representations of various elements of the application, including menus and the ruler with its icons. A powerful mail merge function can be used in conjunction with a database created in FileMaker II or with any data file created in a word processor. \$249; MacWrite 5.0 owners can upgrade for \$65 and owners of other Mac word processors can upgrade for \$75. Claris Corporation, 440 Clyde Avenue, Mountain View, CA 94043. 415-960-1500.

More II (for the Mac)

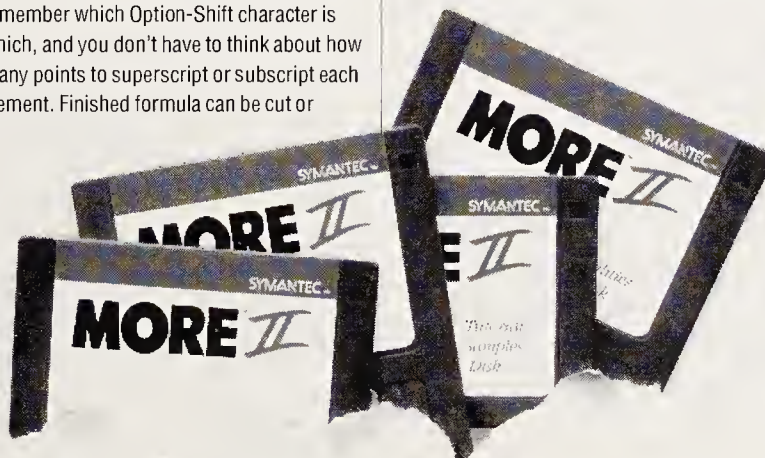
This program's ability to take outlines through the writing stage to finished presentations is enhanced by its ability to import files from graphics and writing programs like Adobe Illustrator and MicroSoft Word, as well as word processors. It functions with the Kodak Datashow Presentation Remote and includes an impressive library of clip art, background designs, and templates for charts, slides and overhead transparencies. \$395. Symantec Corp., 10201 Torre Avenue, Cupertino, CA 95014-2132. 408-253-9600.

Big Thesaurus (for Mac Plus or better, with hard disk)

BigThesaurus is an interactive desk accessory with over 100,000 words. It can display over 1.4 million combinations of synonyms, antonyms, and related, compared and contrasted terms. At the user's option, Big Thes will display definitions. Lookups can be initiated by double-clicking, and replacement words are inserted into the word processor file without loss of font or format information. You can define your own Command key combinations to invoke the lookup and replace functions from the keyboard. The average access time is less than one second. More than one resizable, repositionable lookup window can be open at a time, and the BigThes remembers the last 20 steps in a lookup path, so you can explore related word, knowing you can easily get back to a previous choice. Big Thes is compatible with most word processors, MultiFinder, and HyperCard, but it's not compatible with FullWrite Professional. \$99.95, Deneba Software, 3305 N.W. 74th Avenue, Miami, FL 33122, 305-594-6965.

Microsoft Word 4.0 (for the Mac)

In the new version of this very popular word processing program, the emphasis is on flexibility. New features include a fully WYSIWYG environment in Page View, text wrap around objects, full control in modifying the interface to suit the user (adding choices to menus and changing the keyboard combination that will invoke a command), a thesaurus, a macro program for automating sequences of commands, easy tables without tabs, a way to anchor graphics or sections of text to a specified position on the page, so that it remains in the fixed location even when editing changes are made to surrounding text. The new version also allows you to style by example: a style can be picked up from an one paragraph and



applied to another by clicking. \$395; upgrade costs depend on when Microsoft 3.0 was purchased. Microsoft Corporation, 16011 N.E. 36th Way, Redmond, WA 98073, 206-882-8088.

PC Style, Right Writer, and Grammatik III (all for the PC), and **Tools for Writers, MacProof, and Doug Clapp's Word Tools** (all for the Mac)

These editing programs are reviewed in "Grammar and Style Checkers: Poor Stepchild Comes of Age?" on page 7.

Desktop Publishing/Presentation

Acta Advantage (for the Mac)

This general-purpose tool for outlining, planning, organizing, presenting and writing has the advantage of being both a stand-alone application and a desk accessory. So if you have a great idea this afternoon while you're working in a word processor about the document you were outlining this morning, you can open Acta through the apple menu and add to the outline without leaving your present task. Text or graphic topics can be moved, split, dragged, expanded or collapsed. \$129, Symmetry Corporation, 761 East University Drive, Mesa, AZ 85203, 602-844-2199.

SmartForm Designer and Assistant (for the Mac)

Designer creates simple or complex forms that can be printed and then completed by hand or distributed electronically for on-line completion with Assistant. Designer lets you maintain a form inventory on-line for easy updating and sharing. Assistant has built-in help messages and choice lists to guide the user and automatic calculations and error checking to ensure accurate completion. Finished forms can be routed electronically using a file server or E-mail, or exported for use by databases and spreadsheet programs. \$399 for Designer, including a single-use copy of Assistant. Additional copies of Assistant are \$49, or \$399 per 10-pack. Claris Corporation, 440 Clyde Avenue, Mountain View, CA 94043. 415-960-2790.

Contemporary Backgrounds, Volume 1 and Textured Backgrounds, Volume 1 (for the Mac and IBM)

Each volume contains 12 professionally illustrated full-page (8-1/2 x 11-1/2) graphics backgrounds in EPS format, which can be cropped, sized or stretched and combined with text and graphics to custom fit any page size or shape. \$69.95 each. ARTfactory, distributed by PageStation Network, Inc., 414 Tennessee Plaza, Suite A, Redlands, CA, 714-793-7346.



Swivel 3D 1.1 (for the Mac)

Created for the user involved in animation, illustration, desktop publishing and product design, this substantial upgrade could be called 2.0 — it's that advanced. The new Swivel 3D will now anti-alias projected images, objects and backgrounds to smooth images and render them suitable for interlace video use. An image-mapping capability lets you place a different paint or draw texture/image on the surface of each object image, which will stay with the object when it is saved or animated. The tween panel option now includes multiple key frames, ease in/ease out, Save PICS (the animation file format, and Save to Scrapbook (which makes it possible to create collections of scrapbooks during tweening). The intensity of both front light and back light controls are adjustable so that shadows can be cast toward the viewer. The upgraded Swivel 3D gives you percentile control over the number of colors, color range, color contrast and shadow control with the new color dialog box. New shading effects include flat color, cool penumbra and cool shadow. Features like scaling section views, scrolling section views, rulers, add and delete points and skin tree bring new dimensions to the designing of objects, and Swivel 3D is compatible with MultiFinder. \$495. Paracomp Inc., 123 Townsend Street, Suite 310, San Francisco, CA 94107, 415-882-0522.

The Children's Writing and Publishing Center (in 5-1/4- and 3-1/2-inch formats for the Apple II series)

A field-tested desktop publishing program developed especially for children ages 9 and up, this program combines text and page-layout features with an easy-to-use interface

that helps children create illustrated reports, stories, letters and newsletters, for example. The program features automatic text wrap around pictures and cut-and-paste within text. It supports the use of several font styles and sizes, proportional spacing, one- or two-column formats, and printing on dot matrix black-and-white or color printers. It includes a library of over 150 pictures and will accept pictures from the leading graphics libraries. Consumer edition, \$59.95; school edition designed specifically for teachers, \$79.95. The Learning Company, 6493 Kaiser Drive, Fremont, CA 94553, 415-792-2101.

GRAPHICS PROGRAMS

NuPaint (for the Mac)

Time-saving cleanup tools unique to this black-and-white program include the Razor and the Trowel, designed to make quick work of any stray fatbits by shaving off jagged points and dots and whipping lines into shape. A Revert Eraser feature allows you to erase a small area back to its last saved version instead of starting over, and a set of smoothing tools will randomly stir up

or remove dots for a customized effect. A significant upgrade is the addition of 32 x 32-dot patterns, with over 100 defined patterns provided and with unlimited space for user-designed patterns. NuPaint places and duplicates images precisely with scales in inches, points, picas or centimeters, and can set repeats up to five inches apart. \$139.95. NuEquation, Inc., 1701 N. Greenville Avenue, #703, Richardson, TX 75081. 214-699-7747.

ColorPaint (for the Mac II)

This program offers many of CricketPaint's most powerful features, including FreshPaint for translating any object into a bitmap for editing with a full range of bitmap tools, and introduces Split Zoom for working simultaneously at any of four levels of magnification, from 200 to 1600 percent enlargement. \$295. Cricket Software, Great Valley Corporate Center, 40 Valley Stream Parkway, Malvern, PA 19355. 215-251-9890.

Adobe Streamline (for the Mac and IBM)

This unique tracing program converts any bitmapped image into an Adobe Illustrator file or EPS file, which can then be used as is, modified in Illustrator or exported to a page layout or word processing program. It reads TIFF, PICT or MacPaint, but is not meant to convert files containing continuous tone. A choice of conversion methods lets you either batch process several files as one job or process files individually. \$395. Adobe Systems Incorporated, 1585 Charleston Road, P.O. Box 7900, Mountain View, CA 94039-7900. 415-961-4400.

CLIP ART

Adobe Collector's Edition: Patterns and Textures (for the Mac)

Designed for use with Adobe Illustrator 88, the nearly 400 patterns and textures can be modified and manipulated for use in maps, floor plans or medical illustrations, for example. The collection has been organized into five categories: architectural, basic graphic, cartographic, classic and geological. \$225. Adobe Systems Inc., 1585 Charleston Road, P.O. Box 7900, Mountain View, CA 94039-7900. 415-961-4400.

Cliptures, Volume 2 • Business Images 2 (for the Mac)

Like Volume 1, Cliptures Vol. 2 is targeted for businesses and professionals who do desktop publishing and presentations either in-house or for clients. Volume 2 contains roughly 200 illustrations on five 800K disks, all created with Adobe's Illustrator software; any page layout or graphics program that accepts EPS files can use them. \$129.95. Dream Maker Software, 4020 Paige Street, Los Angeles, CA 90031. 213-221-6436.

ProArt Professional Art Library (for the Mac and IBM)

Available on CD-ROM or floppy disk, this release includes the first three collections of a series: "Business," "Holidays," and "Sports." Each has over 100 illustrations in EPS format that can be placed in desktop

ART FACTORY

publishing or presentation programs, or edited, manipulated and enhanced with graphics applications like Illustrator or FreeHand. \$139 apiece or all three on a CD-ROM disk for \$375. Multi-Ad Services, Inc., 1720 W. Detweiller Drive, Peoria, IL 61615-1695. 309-692-1530.

Totem Graphics PostScript (for the Mac)
Totem clip art is available on a subscription basis. There are 12 categories (birds, domestic animals, fish, flowers, food, holidays, insects, nautical, sports, tools, wild animals and women) containing eight images each. \$95 per category. Totem Graphics, 5109-A Capitol Blvd., Tumwater, WA 98501. 206-352-1851.

CAD/CAM

Claris CAD (for the Mac)
This program integrates the full range of design and drafting features, including mouse/keyboard entry, construction of fillets, tangents and perpendiculars and automatic dimensioning. It fully utilizes the Macintosh interface for increased accessibility, flexibility and speed. \$799; upgrade for MacDraw II owners, \$399. Claris Corporation, 440 Clyde Avenue, Mountain View, CA 94043. 415-960-2790.

Printers, Printer Drivers and Imagesetters
Color Printer Drivers from Palomar (for the Mac II)

These Chooser-level drivers were developed for the Hewlett-Packard PaintJet and Howtek PixelMaster, and offer a mid-price solution for color printing. The toolkit supports black-and-white, 8-color and 256-color printing, with advanced drivers providing a full range of 16 million output colors using Apple's 32-bit QuickDraw. All drivers include sophisticated text placement algorithms to



guarantee WYSIWYG text placement on the printed page, and work with most popular desktop publishing, presentation and graphics applications. The drivers are sold by their respective manufacturers: Hewlett-Packard 619-592-8080; Howtek 603-882-5200. Palomar Software, 2964 Oceanside Blvd., Suite E, P.O. Box 120, Oceanside, CA 92054. 619-721-7000.

Sharp JX-730 Color Ink Jet Printer

Designed for fast printing in seven colors, this jet printer has 48 nozzles to crank out copies at 80 cps for each color. Resolution is 180 x 180 dpi on paper up to 14.3 inches wide, with the option of either bi-directional or uni-directional printing. \$2195. Sharp Electronics Corporation, Sharp Plaza, Mahwah, NJ 07430-2135. 201-529-8200.

Tektronix Phaser CPS and Phaser PS (for the Mac)

This color PostScript-compatible printing system features AppleTalk network interface, print-spooling software, a 40MB hard disk, printer control with 8 MB of memory expandable to 11 MB and a Phaser color print engine. It offers thermal transfer, letter-size

and legal size output with a virtually unlimited color range, and a print speed of less than 50 seconds per copy. The Phaser print controller is also available as the Phaser PS, a stand-alone networked print controller that provides a flexible color PostScript-compatible upgrade path for users of Tektronix's color image printers. Phaser CPS, \$15,995; Phaser PS, \$9995. Tektronix Inc., Graphic Printing and Imaging Division, P.O. Box 1000, Wilsonville, OR 97070. 503-685-3585.

ColorQuick Ink-Jet Printer (for the Mac)

The first color printer designed specifically for the Mac personal computer environment, ColorQuick features a chooser-level QuickDraw driver, 216 dpi resolution for high-quality bitmapped graphics and a high-speed SCSI port for rapid data transfer. Operating at two minutes per page, it prints in four sizes: letter, legal, 11 x 17-inch and 12 x 18-inch, permitting full 11 x 17-inch prints with margins and no image loss. ColorQuick prints on coated paper, transparency film and plain paper, and includes automatic sheet and roll feeders. With 11 font families, matching the LaserWriter Plus set and 16.7

million colors, the printer supports a variety of software packages including PowerPoint, Persuasion, FreeHand, Cricket Presents, More II, Letraset StandOut!, Claris MacDraw II and PixelPaint. \$2495. Tektronix, Inc., Graphic Printing and Imaging Division, P.O. Box 1000, Wilsonville, OR 97070. 503-685-3585.

MATRIX TT200 Thermal Transfer Printer (for the Mac II)

An interface card that plugs into an empty slot in the Mac II and an expanded version of Matrix's Conductor utility software make the TT200 (the same printer that's been available for MS-DOS) Mac-compatible. With Conductor, the TT200 is compatible with programs that create PICT files (I and II), create scrapbooks or save information to the clipboard. Conductor also lets the user access high-resolution outline digital type fonts, and choose from six different dithering patterns to fine-tune or optimize the final image. Printer and interface kit, \$5,590; interface kit alone, \$595. Matrix Instruments, Inc., 1 Ramland Road, Orangeburg, NY 10962. 914-365-0190.

PixelMaster Thermo Jet Printer and MacScript-It (for the Mac II)

MacScript-It is a Color PostScript language interpreter for the Pixelmaster. This introduction of compatibility between the two allows the user to create high-quality output with brilliant color images merged with crisp text. MacScript-It utilizes the full range of PostScript capabilities such as rotation, scalable fonts and page composition, and through an intelligent font-scaling system initially supports 35 high-quality fonts with an infinite number of point sizes. The printer produces superior, raised text and high resolution (240 x 240 dpi) graphics and images in full color (256 shades) on any standard office paper. \$6,995 with the QuickDraw printer driver only; \$7700 with MacScript-It. Howtek, Inc., 21 Park Avenue, Hudson, NH 03051. 603-882-5200.

Varityper 4200PP (Upgrade) and 4300P Imagesetters (for the Mac and IBM)

By combining Adobe's Atlas-Plus raster image processor with Varityper's high-performance 4300 laser recorder, both imagesetters produce output significantly faster than competitive PostScript imaging devices with comparable resolutions. The 4300P puts out 1200 dpi images at 20 inches per minute, and 2400 dpi images at 10 inches per minute. The 4200PP output resolution is 1200 dpi and runs at 15 inches per minute. A PostScript Option upgrade, field installable, is available for 4300P users, while 4200P customers can upgrade to the 4300P. 4200PP, \$34,995; 4300P, \$53,995. Varityper, 11 Mt. Pleasant Avenue, East Hanover, NJ 07936. 201-887-8000.

Sharp JX-100 Personal Color Scanner

The world's smallest flatbed color scanner (6.3 x 12.6 x 1.6 inches, 3-1/2 pounds), boasts a resolution of about 200 dpi. The JX-100 offers a monochrome mode as well as a 256 gray-scale mode and can recognize 16.7 million colors. Its three-path scan (red, green, blue) maxes at 30 msec/line to provide 8-bit/pixel output (6-bit accuracy) for 3.9 x 6.3-inch areas; color separation is done by a single CCD sensor combined with three (red, green, blue) filters. The JX-100 uses a 12VDC power supply (8.4W AC adaptor), with RS232C serial interface. \$995. Sharp Electronics Corporation, Sharp Plaza, Mahwah, NJ 07430-2135. 201-529-8200.



MONITORS/DISPLAY SYSTEMS

SuperMac Spectrum/8 and Spectrum/24 (for the Mac)

The Spectrum/8 graphics card (for the Mac SE/30) supports color, grayscale and multimedia video output with displays of up to 1024 x 768 pixels and 256 on-screen colors from a lookup table of 16 million. It offers hardware pan and zoom and a virtual screen for an enlarged working area of up to 4096 x 1792 pixels. Spectrum/24 (for the Mac II) is the first high-performance "full chunky" true color graphics card that fully supports the 32-bit QuickDraw definition standard. Supporting index color at 1-, 2-, 4- and 8-bit and true color at 24-bit pixel depth, it can provide the same maximum display area and color ranges as Spectrum/8 on monitors ranging from 13 to 19 inches. Spectrum/8, \$1,895; Spectrum/24, \$4,999. SuperMac Technology, 485 Potrero Avenue, Sunnyvale, CA 94086. 408-245-2202.

Viking 21-inch Color Monitor

(for the Mac II)

The Viking 21's square flat screen provides a larger display area and reduces glare pickup from overhead or peripheral light sources by

30 percent. New technology utilizing an iron and nickel alloy on the monitor's shadow mask results in a significantly brighter picture, while geometric distortion is eliminated, making the center and corner focuses on the monitor extremely sharp. The Viking 21 displays 256 colors from a palette of 16.7 million with a dot pitch of 0.31 mm, a 72 dpi resolution, and active screen size is adjustable from 14.2 x 10.6 inches to 16 x 12 inches. \$3795. Monitorm, 5740 Green Circle Drive, Minnetonka, Minnesota 55343. 612-935-4151.

The Big Picture Z21 SE/30

(for the Mac SE/30)

A 21-inch monochrome monitor with four configurable resolutions, the unit provides 30 percent more viewing area than a 19-inch monitor while occupying the same desktop space. Its refresh rate of 70 times per second in 80 dpi mode and 76 times per second in 72 dpi mode produces a stable image that increases eye comfort, while its low-curvature flat screen allows precise focus over the entire 16 x 12-inch display area. \$2495. E-Machines, 9305 S.W. Gemini Drive, Beaverton, OR 97005. 503-646-6699.

StereoOptic Display System

(for the Mac II)

This 14-inch color display system brings stereo viewing capabilities to scientific and technical users of the Mac II for the first time. The unit produces a 640 by 480 pixel color stereo image, displaying 256 colors from a palette of 16.7 million. Double stereo frame buffers on the controller card can be used to implement smoother, faster animation and motion, and a second QuickDraw overlay frame buffer allows stereo images to be easily integrated into the Mac environment. \$1750. E-Machines, 9305 S.W. Gemini Drive, Beaverton, OR 97005. 503-646-6699.

STORAGE SYSTEMS

ArtDisk (for the Mac)

A stand-alone peripheral device that allows for storage of more than 2400 images per 20 megabytes of hard disk, ArtDisk handles formats from line art to photographs and contains an associated database for easy retrieval and file management. This device can display images at close to real time video and has a default speed allowing users to view any image within .2 seconds. It comes with its own 9-inch monitor and hard drive, and is targeted for April delivery. \$2100. DiskArt, P.O. Box 354, San Ramon, CA 94583. 415-820-3734.

FDHD Macintosh II Upgrade

The FDHD (Floppy Disk High Density) upgrade lets the Mac II format, read and write Macintosh 400K, 800K and the new 1.4 MB disks, as well as MS-DOS, OS/2 (720K or 1.44MB) and 800K ProDOS disks using Apple File Exchange, version 1.1 or greater. Dealer installation is required. \$599. Apple Computer, Inc., 20525 Mariani Avenue, Cupertino, CA 95014. 408-996-1010.

TurboFloppy 1.44 MB Floppy Drive

(for the Mac)

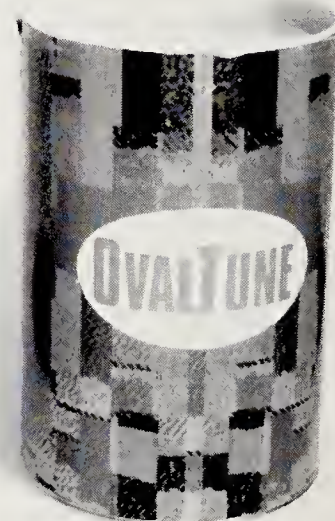
TurboFloppy's key feature is its ability to boot from a 1.44 MB floppy disk, so users can take advantage of Apple's new, memory-hungry systems without using a hard disk. Since it's compatible with Macs from the Plus up, there is no need for upgrades or special controllers. TurboFloppy uses advanced PLI software that operates transparently, allowing the drive to read and write 720K and 1.44 MB IBM diskettes. The MS-DOS files appear in conventional Mac windows, and can be opened by compatible applications or converted to other formats with Apple's File Exchange Utilities. \$499. Peripheral Land, Inc., 47800 Westinghouse Drive, Fremont, CA 94539-7469. 415-657-2211.

Drive 2.4 and Rapport (for the Mac)

Rapport is a small, mouse-sized module that plugs into the external drive port of a Mac. Once installed, it lets you read MS-DOS files from 720K, 3.5-inch diskettes easily and quickly with their existing internal drives. Apple 800K external drive users can read

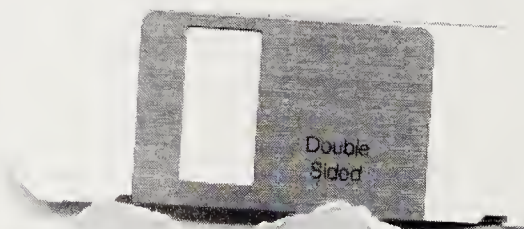
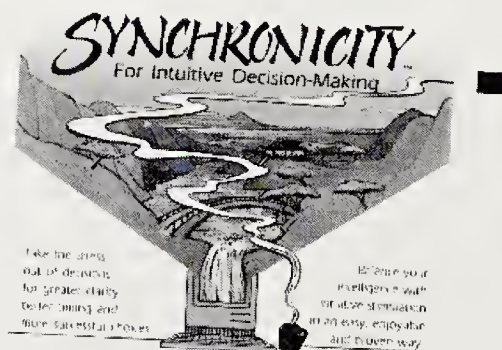
OvalTune (for the Mac)

We've been anticipating a new category of personal computer creativity products that allow users to work with sound and images in unprecedented ways. OvalTune, kind of an interactive music video program, allows users to create and "play" compositions incorporating sampled instruments or sounds and on-screens graphics. Particularly engaging on a large screen Mac II with an external speaker system, the program plays a basic music bed and adds riffs or other pre-programmed sequences – as well as changing colors and shapes on the screen (programmable "brush mirror"-style effects) – when the mouse is moved in different directions and at different speeds. The program utilizes MIDI input or the included SamplePlayer program with up to six simultaneous voices of sampled sound. It will record music/graphic sequences, and will save screens as PICT files. \$149.99. Intelligent Music, 116 North Lake Avenue, Albany, NY 12206 518-434-4110.



Synchronicity (for the Mac)

Carl Jung coined the term to describe an "acausal connecting principle" that lies behind seemingly coincidental events, Sting made it hip, and Visionary Software brings it into the digital age. Synchronicity consists of a series of artistically rendered screens based on the Book of Changes, complete with adjustable recorded sounds of an Oregon stream (animated in the art) and "random-access frogs." The program is designed as an intuitive decision-making tool for creative professionals, and functions by producing a "reading" response to a given question, based on the exact timing of the user's performance during the "ritual." The underlying principle is purported to help users achieve greater clarity around a question, issue or problem, to disengage themselves from situations long enough to reduce stress and enhance objectivity, and to stimulate intuition for better solutions and decisions. A "grass roots" marketing program employs a built-in "fresh copy" routine that generates fully convertible unnamed demo versions of the product. Once purchase is made, the demo can be unlocked by phone without losing its capability to generate demo copies. \$49.95. Visionary Software, P.O. Box 69191, Portland, OR 97201. 503-246-6200.



and write both Macintosh and MS-DOS formats. Via uniform data density packing, Rapport can expand the capacity of external Apple 800K floppy drives to 1.2 MB. Combining Rapport with Drive 2.4 lets users of the 512e, Plus and SE read, write to and format to all current IBM and Apple 3.5-inch standards, including the Mac IIx and IBM PS/2. Rapport, \$295; Drive 2.4, \$495. Kennect Technology, 271 Hacienda Avenue, Campbell, CA 95008. California - 408-370-2866 or 800-552-1232.

Ricoh RO-5030E Rewritable Optical Disk System

This 5-1/4-inch full-height system offers an industry-first SCSI interface to provide full compatibility with Ricoh's optical disks. Features include: high-speed self test; automatic recognition of media surface, automatic error control, error report and pre-

fetch. Average access time is 61 msec. \$3,490; ISO-approved standard 5-1/4-inch optical disk cartridge, \$260. Ricoh Company, Ltd., 15-5 Minami-Aoyama 1-chrome, Minato-ku, Tokyo 107, Japan. 03-479-3111.

Sumo Systems Rewritable Optical Disk Subsystems (for the Mac)

The Subsystem comes with subsystem enclosure, cables, complete software package and documentation, and features: complete external plug-and-play subsystem, a capacity of 600 MB (297.6 MB of data per surface), auto on-line formatting, booting capability, auto defect management, intelligent SCSI interface, and; installer and init software. \$4500. Sumo Systems, 1580 Old Oakland Road, Ste. C103, San Jose, CA 95131. 408-286-5744.

Scanners

SX-1000 Scanning System

This scanner works with most Epson dot matrix printers, as well as all of the FX and some LQ models currently available. By swapping the user-replaceable Epson printhead with a precision-molded SX-1000 scanning head, you can convert the printer to a scanner. A user brightness adjustment, software brightness and contrast control, and a zoom function extend the system's eight levels of gray scale. The scanning software is compatible with programs like Ventura Publisher, PageMaker and PC Paintbrush. Files can be saved or printed in bi-level, dithered or color forms. \$249.95. Desktop Technology Corporation, 986 mangrove, Suite B, Sunnyvale, CA 94086. 408-738-4001.

HYPERFICTION

Some of the nicest stackware we've seen is being produced by B & B Soundworks as interactive literature for children. **A Country Christmas** is a stackful of interactive stories, games, recipes, music, and arts-and-crafts activities, along with an advent calendar and other charming seasonal art. The environment created by the stack is captivating, all the activities work, and all the recipes turn out delicious results. It's rare to find any product — inside the computer world or outside it — as well-crafted as this one. **My First Book of Poetry**, — packaged with an earlier B&B stack, **The Dream Called Storm** — is poetry by Sharon Newby written when she was 11 to 14 years old. Some of the verses are playful, some are serious. Animated illustrations, skillfully executed dissolve techniques, and excellent sound add to the charm of the poetry. Like Dream, this stack reminds us how it feels to be inside a young mind. B & B Soundworks, 1040 South Daniel Way, San Jose, CA 95128, 408-241-7986.

Otherware

MacDiskManager (for the Mac)

This program organizes and identifies disks without adhesive labels by reading the directory information from floppy disks, then formatting, displaying and printing it either on Rolodex file cards or on Weber's

NoLabelsSystem tabbed insert cards, which fit into a plastic pocket permanently affixed to the disk in place of a label. MacDiskManager also stamps the date and the user's choice of numbering methods. \$89.95. Weber & Sons, Inc., 3468 Highway #9, Freehold, NJ. 201-431-1128.

Electronic Arts Mouse (for the IBM)

Offering high resolution, excellent tracking and smooth, quiet operation, the EA Mouse has a special silicon-coated ball and teflon runners that allow it to slide smoothly across any surface, so no pad is needed. The device sports two wrap-around tactile feedback buttons for easier clicking and a reverse-tapered shape so it fits comfortably in the hand. The package includes DeluxePaint II. \$149.95. Electronic Arts Distribution, 1810 Gateway Drive, San Mateo, CA 94404. 415-571-7171, x379.

The Voice Navigator (for the Mac)

The Voice Navigator is a hardware/software system that allows the use of spoken commands with a Mac Plus, SE or II. Verbal commands can be used instead of, or in addition to, the keyboard and mouse to select from menus, choose graphics tools, respond to dialog boxes, enter data, and so forth. The system works with any application. A FAX/modem add-on chip will be forthcoming. \$999. Articulate Systems, Inc., 99 Erie Street, Cambridge, MA 02139. 800-443-7077. (For information on initial retail availability in Southern California, contact Dinotech Marketing, 619-265-2971.)

The Computer Glossary (Fourth Edition)

by Alan Freedman

Subtitled *The Complete Illustrated Desk Reference*, this book is an excellent resource for those of us who write for some branch of the computer industry as well as those who have to struggle to understand and retain enough of what we read to stay literate. From *cold boot* to *hot key*, from *flippy-floppy* to *scan head*, from *bomb* to *zap*, the new tech lingo is laid out. From *fingerprint reader* to *RS-232 interface*, *database* to *turtle graphics*, Gene M. Amdahl to Steve Wozniak, the new hardware, software and liveware are shown in living black-and-white — line drawings and halftones. If you have trouble remembering from one article to the next exactly what *anti-aliasing*, *synchronous communication*, or *genlock* means, or what the *DIP* in *DIP switch* or the extra *D* in *CADD* stands for, this is a very handy reference. AMACOM, 135 West 50th Street, New York NY 10020

The Macintosh Font Book by Ewert Fenton

This book is well-researched, and it's a good read. While Fenton provides enough connections to the past so that readers can put electronic type into some kind of historical perspective, she wastes no time in getting to essential font issues, which she covers with intelligence and a sense of humor. A comprehensive guide, the book introduces beginners to the fundamentals of typography and

provides beginners and experienced publishers alike with essential information about choosing and using electronic type. It also provides tips on such topics as using punctuation, creating fractions, resolving font ID number conflicts, creating special effects with type, and customizing the keyboard. The book includes source information for fonts, font-related products and imagesetting services coast to coast in the United States and Canada. While much of the information is specific to the Mac, PC users can also use the basic information about type. \$23.95 plus shipping and handling, Peachpit Press, Inc., 1085 Keith Avenue, Berkeley, CA 94708, 415-527-8555.

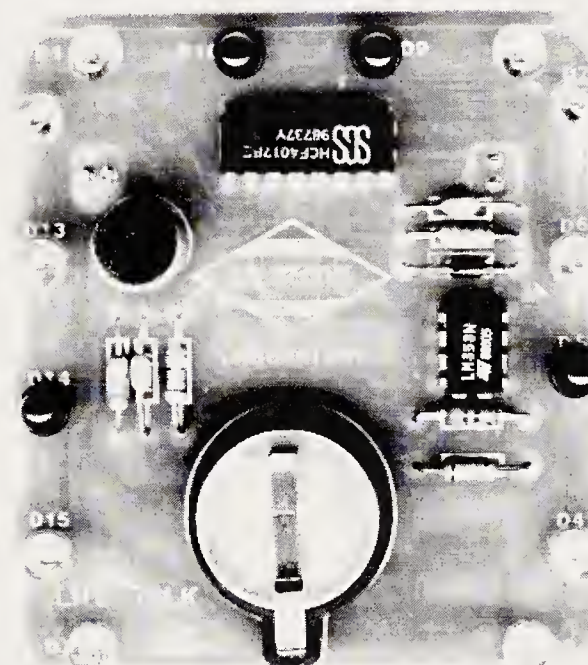
WordsWork On-line Editorial and Design Service

This service provides complete editorial and design support for people who use personal computers to produce publications such as reports, brochures and newsletters to meet deadlines — an alternative for desktop publishers who would otherwise stay up all night and try to do it alone. Accessed with a modem and an electronic mailbox on the CONNECT network, WordsWork can receive

and send draft text and finished artwork over phone lines. WordsWork, Suite 705, 610 Eighth Avenue SW, Calgary, Alberta T2P 1G5, 403-269-5233.

MacBooks

The MacBooks mail-order bookshop claims to offer the largest selection of Macintosh books anywhere — hundreds of titles from dozens of publishers. The MacBooks catalog is a complete inventory listing by category, along with reviews and recommendations for Macintosh books already in print as well as those in the works. The catalog is available on paper or as a rechargeable HyperCatalog (HyperCard stack). The stack can be "recharged" by downloading online updates. Customers can browse or order by phone 9-5 PST M-F, mail, or FAX, MCI MAIL or modem to the 24-hour online bookshop. Catalog (HyperCard or hard copy version), \$2. MacBooks, 4228 Darlington Court, Palo Alto, CA 94306, 415-494-2154.



LITE TALK

WEARABLE CHIPS

Chipwear of Ojai, California has been crafting earrings, tie tacks and cufflinks from microprocessors. The gallium arsenide chips feature stylish gold-plated leads. Kirstin Pisacane, was caught off guard by the demand for the jewelry, which is sold by retailers in Los Angeles, San Francisco and New York, including Bloomingdale's. Prices range from \$9.50 to \$23. (Call Ojai information for the firm's new phone number, which was unavailable at press time.)

Winkies are black, one-inch square "computer friend chips," with green and red diodes for eyes. You can wear a Winkie as a pin or earring, and you can set one or both eyes winking by touching hidden switches. Winkies are available in quantity for a few dollars each (representing a donation to the museum), from the San Francisco International Toy Museum at 415-441-TOYS. Owner Stevanne Auerbach is interested in ideas for artworks using Winkies.

Finally, **LiteTalk** is a more powerful chip pin. About 3 inches square with a variety of lights, it's voice-activated. \$15 wholesale in minimum quantities of 15; \$30 retail. Dr Neon, 3275 Laguna Canyon Road, Laguna Beach, CA 92651, 714-494-4020.



Don Baker

Kafka Diner
Artifacts

Antelope

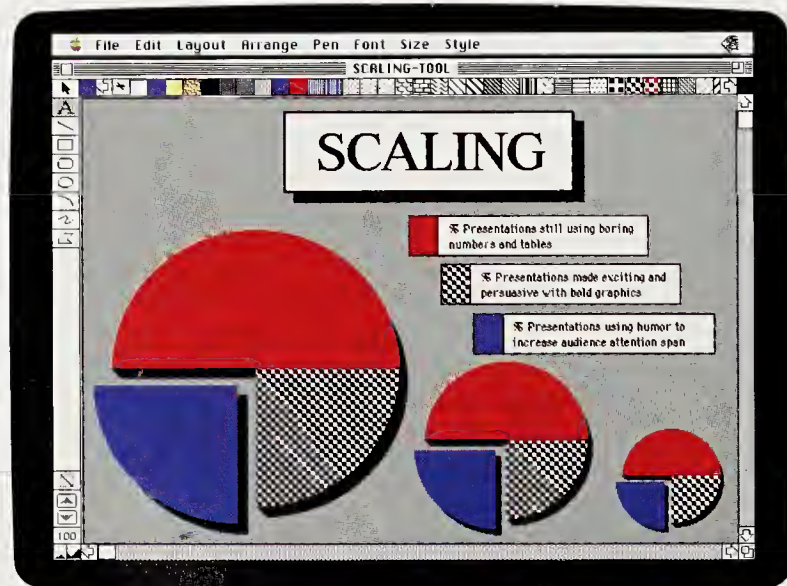
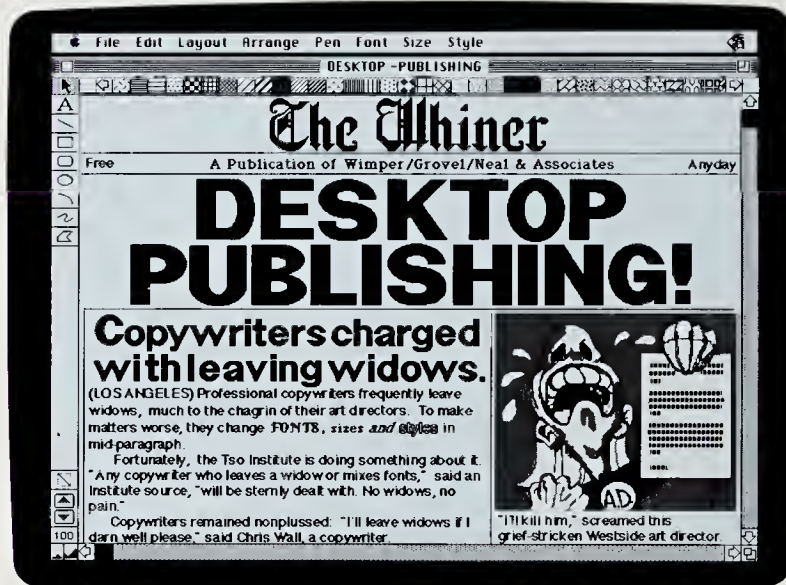
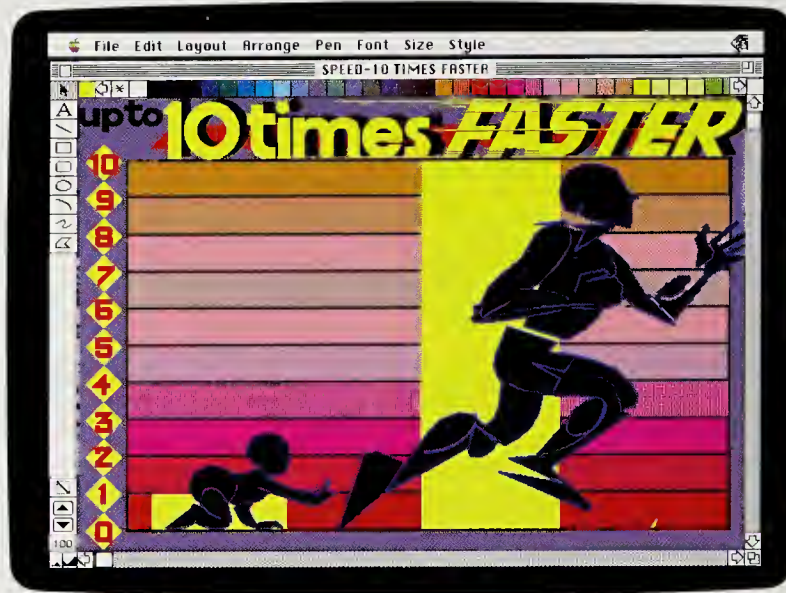
The Artifacts illustrations were created with Aldus FreeHand 1.0 for a story in *Art Brigade*, an experimental fiction and art magazine.

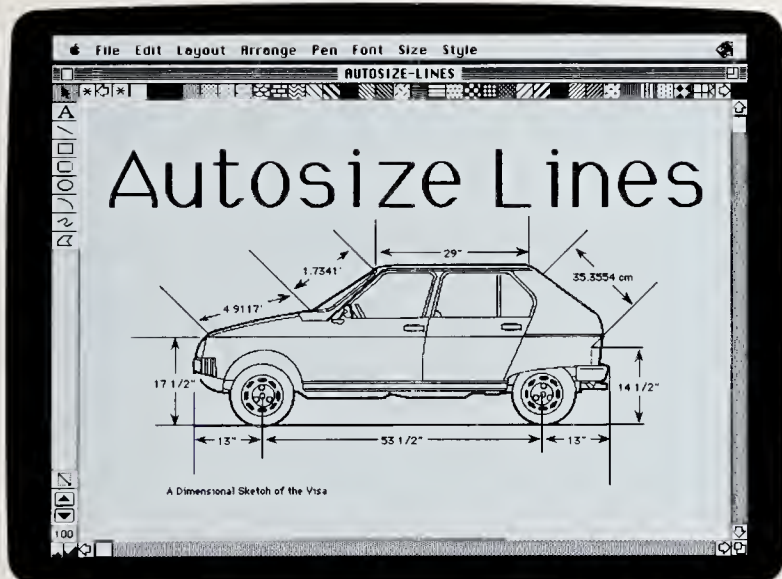
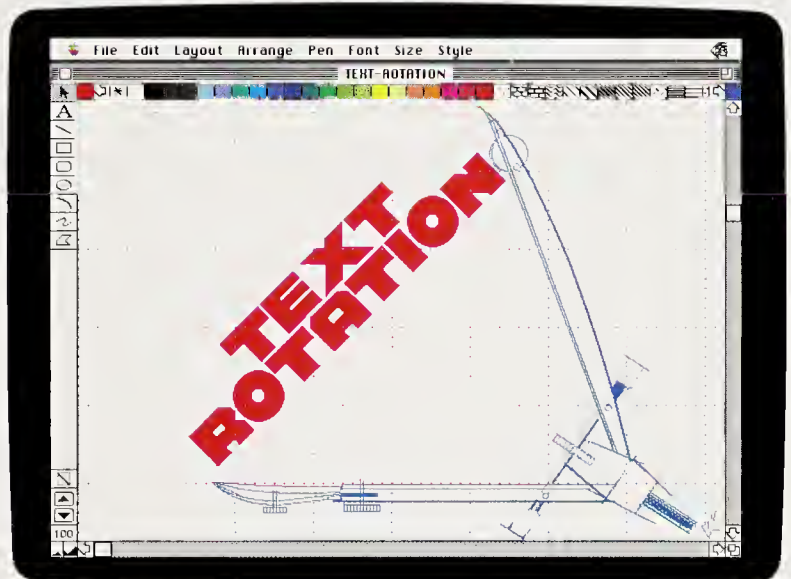
Antelope was also drawn with Aldus FreeHand on a Mac II.

Mr. Baker is a Seattle illustrator.









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Nobody reads copy anyway. MacDraw II.

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Icons

L enore Weiss

Poet and playwright Lenore Weiss has an M.A. in Creative Writing from San Francisco State University. She keeps up with the technological changes of her day as a desktop publisher of computer manuals, training materials and newsletters for the City of Oakland. Her creative writing focuses on how the current technology is transforming our use and conception of language. It "explores how the things that make us quiver the most can be expressed in that [technological] language." These poems were selected from a collection of 24 in a volume called *Icons*.

Icons

Lenore Weiss
1317 E. 27th Street
Oakland, CA 94604
(415) 261-7492 (evenings)
\$5



I CRY OUT FOR LOVE

<6>

Plant blossoms outside your house
To tame the wild children of broken noses
Who come like hamsters nibbling at your doubt
In gigglebytes up the porch step wearing jumburritos
And cellophane candy wrappers, crinkling them;
French fry spears and play blood splatter,
There's the horn honk, who's a venture success
On the street where it's money and cars that matter.
Give them sweet bouquets as a childhood reminder
Not to grow up so quickly they forget
How a daisy is a love finder,
Or the honeysuckle a hummingbird's golden trumpet,
Or how, in encapsulated format, they are the seedlings
Of worldwide peace.

<7>

Baby, I'm going to HotChat you tonight
Pour almond oil on my silver tongue
And lick a Highway 69 across your bicoastal
Shoulders. I'm a headhunter
Itching to make you cross my Bridge
Of Sighs — do I have a job — Beat you out
Of the bushes and make sure I get my dibs.
Here's my tongue, my teeth, my mouth
As you pixel my skin with soft kisses
'Til I totter on the painted edge;
Make my Bézier curves miss
The way you use my ass for a ledge.
But then what will you do
When I close the window on you?

W

HEN STATEMENTS

<1>

When I was a young girl in jumper cables,
 Red wool socks pulled over my knees,
 I kept looking for someone who would castle
 To the reverse side of Charon's Channel with me
 Superspooling a golden thread along the sudden rip
 In my fabric, I wanted to bring them back,
 My touring parents, and present the Weisses
 with a Triptik
 Marked in green arrows, pointing to a path;
 How I needed a friend
 In the midst of that great black hole,
 Someone who would be my handle, bent on retrieving
 My floating basket from the Atlantic Ocean
 Where I pushed my spirit child too far,
 Almost sinking all my beautiful wildcards.

<6>

Don't Bogart the clip art,
 Because making love is the fantasy field
 We create undulating around each other,
 not the aerobics —
 Who we become for each other when we
 spark bare skin —
 When I touch you beyond recognition
 Your ratios distort into sharp focus,
 A musical slide show at magnified resolution;
 When you lick my foot, we fruit loop
 Over the top of the ferris wheel
 Somewhere between Santa Cruz and Coney Island,
 Mid-cycle the West Coast really
 Isn't a Waste Land,
 After all, that's the banjo player's Porsche,
 The size of a full-grown Labrador.

I

CON

<1>

With her vanishing point somewhere in the
 Carpathian Mountains,
 Offside, near a glade of dark blue flowers, the fresh water
 Highlighting every horse's hoofbeat wading
 through the stream,
 The place she returns to for bergamot mint and voices
 That vibrate inside her receiver, sending messages
 From a beveled plane. She sculpts pine needles
 Knowing full well it could be cold this night,
 And eats her bread, a carved silver knife
 That waits-in-state upon cold basalt,
 So much like an extension of herself, the soft wearing
 Down of the ivory handle to reveal a blurred face.
 Soon mother calls her name out the window
 When she runs upstairs to soak in the hot, bubbles!

<4>

I can still remember what it was like to be
 An immigrant without a clock radio
 Who knew nothing of the color fuchsia,
 In my black shawl between two wait states
 Of bread and no bread.
 I had no digital pastel cube
 From which I volunteered
 The morning news to actually wake me up?
 What I had, tatala, a music box constructed by
 The Watchman himself, a ballerina with a gold foil rose
 Tucked behind each ear, a starched skirt
 made of such lace
 You'd only find in a hope chest.
 And as she danced around her trolley track —
 Poor thing! We both expected so much.



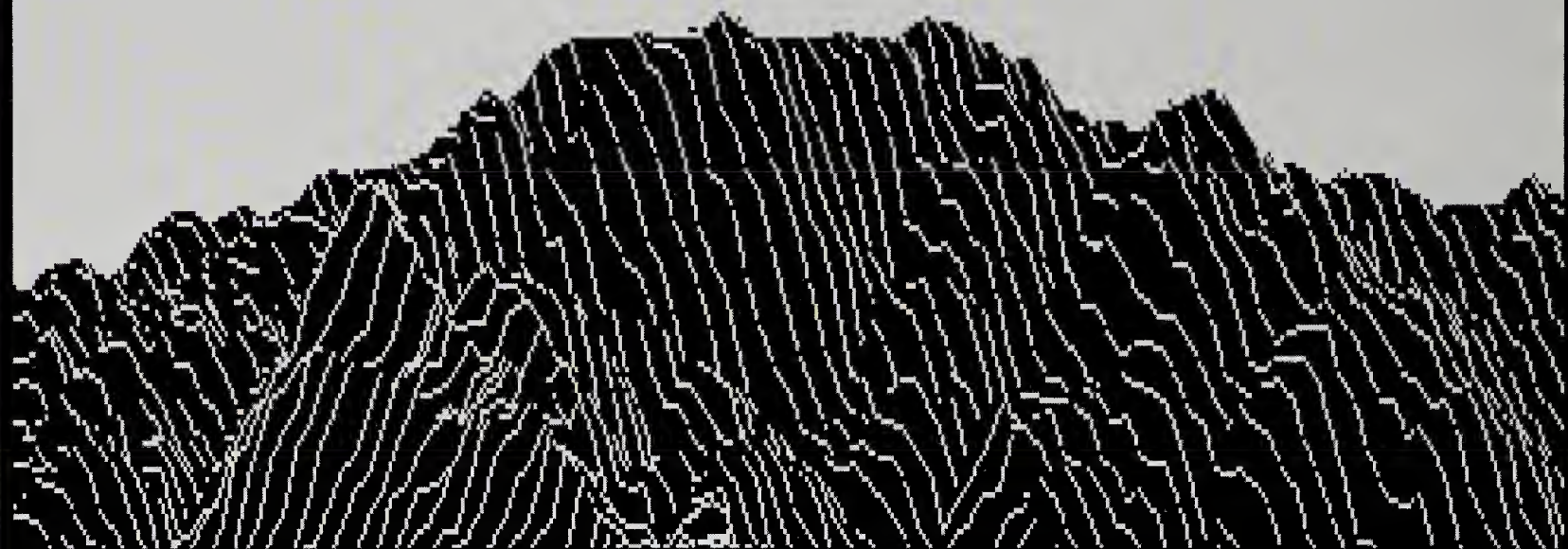
These poems were produced by PIM, a program that writes verses according to a user-generated subject and format. PIM is a public domain program for PC compatibles.

U

NTITLED

the first disheveled drake . . . my last timid sea of an ordinary badland.
the only doe unfolds the only plateau.
the wine has spilled.
the same thing, a tired sky surrounds the only dovetailed doe.

simply
the wine has spilled.
the dovetailed doe: a single sea.
the first disheveled drake . . . the other last timid sea of an ordinary badland.



This outcrop was generated by MacFractal, a public domain program by Mark Zimmer. The fractal image was captured with a screen snapshot and placed into PixelPaint, where the image was inverted to white on black.

no-one's sable: the outcrop.
the mesquite — the sky.
a tired dune recalls the oak.
a single badland under mine, my last sable.

another one, an ordinary dune under an ordinary meadow.
he's returned
simply
the strip of grass . . . the same thing, the sable.

no-one's sea — a single frond.
the only mesquite . . . a single outcrop.
what I see, the mesquite is like the only frond.
no-one's sable is no-one's badland.

the only dune; the mesquite.
the other, the sea lives with no-one's meadow.
like yesterday:
no-one's sable: the outcrop.

continued from page 8

to a human one, perhaps worse. It's tough to prove that this type of prejudice may be consciously or unconsciously at work with some reviewers. So put it down as speculation on my part.

I suspect that one reason the bum rap isn't contested more often is that there are probably closet users of these programs — people secretly using them in the dead of night when nobody is looking. Some people are embarrassed to admit they use spell checkers. Likewise grammar checkers. They seem to feel it's a character defect they must hide.

How Are They Being Used?

Despite their reputation with reviewers, hundreds of thousands of these programs are in the hands of a wide variety of people. In publishing, these counting programs give a quick overview of the reading level and accessibility of the text to readers. This is particularly important in textbook publishing. They save book editors the drudgery of doing their own counting for reading grade level.

The insurance industry uses simple style checkers to try to make their policies readable for their policy holders. Sometimes, of course, this proves that short sentences, short words and action verbs — the goal of style checkers — help produce mechanically sound and punchy gibberish!

Business and professional people use grammar/style checkers to proof their everyday correspondence, reports, speeches and technical writing. In fact, at least two manufacturers explicitly state that their programs are for business users, although they are still quite useful for other applications. Using a grammar/style checker is not as good as having a copy editor on staff — but it's the next best thing for many people. After all, how many offices and smaller laboratories have their own copy editors?

Many colleges and universities use the tutorial programs in writing classes. Teachers use them as a classroom aid. The tutorial software highlights potential problems and asks students to consider the development of their ideas (as well as their sentence structure) within each paragraph and from one paragraph to the next. This software places emphasis on asking students to check the meaning of their writing, rather than mechanically checking for errors.

Writers in many different fields use the whole range of programs. Magazine writers were among the first buyers of the style counters. They often write to a word count, and these programs give them a quick count. They get quick feedback on overall reading level, important for many peri-

odicals. People new to writing like the tutorial programs. Still others use the more powerful grammar/style checkers to clean up the magazine or journal article, or the book manuscript, before an editor reviews it.

My own publishing house just brought out a medical textbook. The author's previous writing included only term papers and one journal article. Her training was typical of technically trained people. She used the passive voice and produced formal, dry, and somewhat difficult-to-read writing. Her book, however, seeks to reach beginners in the medical field. It wants to demystify an area of medicine, and this requires a much more popular writing style than a journal expects.

After she had made several passes through her own manuscript, we ported her MacWrite files to a PC-XT clone and ran Right Writer, a full grammar/style checker, against them. The printout amazed the author. The program had relentlessly flagged the use of the passive voice and had caught many usage errors. She studied the printout and decided which of the flagged problems needed correction. After two rounds of analysis with Right Writer, a human copy editor received a mechanically cleaner manuscript. He spent more time examining the overall structure of the book, the flow of ideas, the placement of topics, the sense of the book, than on the mechanical aspects. Professional journal reviewers and education directors are now commenting very favorably on the final product's readability.

At a publishing house I previously worked for, we also used Right Writer. Our computer book acquisitions editor read sample chapters from newly signed authors. He told us which ones could benefit from using a grammar/style checker. We bought additional copies of the program and gave it to the authors. We felt that we more than saved the price of the program in the improved quality of the finished manuscripts that resulted.

Six Programs To Consider

While writing this article, I reviewed six of the better-known programs for Macintosh and IBM-compatible computers: MacProof (Mac), Doug Clapp's Word Tools (Mac), Tools for Writers (Mac), Right Writer (IBM), Grammatik III (IBM) and PC-Style (IBM). Three other programs (Sensible Grammar for the Apple II and IBM compatibles, Readability Program for the PC, and Punctuation and Style for CPM and PC) didn't arrive in time for this review. I've used Right Writer for three years, beginning with version 1.0, then 2.0 and now 3.0. I had tested earlier versions of MacProof, Tools for

There are
probably closet
users of these
programs —
people secretly
using them in
the dead of
night when
nobody is
looking.

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Writers and Doug Clapp's Word Tools. My testing of the current versions of these packages reveals that all of them are improvements over earlier versions. An exciting discovery for me was Grammatik III. It's powerful and flexible. The whole genre has evolved in a positive way and deserves objective reconsideration by reviewers in other periodicals. Let's take a brief look at each program.

FOR IBM COMPATIBLES



PC-Style is a counting/style checker. That's all it does. If you just want a program to count words and deliver an overall readability level, it's for you. The attractive thing about this program is that it's shareware. You can legally download it from electronic bulletin boards or get a copy from a friend. You try it for free. If you like it, your moral obligation, as with all shareware, is to send the suggested price to the author. At \$29.95 it's not going to break your software budget.

Right Writer 3.0 and **Grammatik III** are well-rounded programs that break the usage-checker barrier in their latest versions and begin to allow actual grammatical checking. Both include spelling checkers and cover a similar range of style, usage and grammatical problems. Each is compatible with a wide range of popular word processing programs. If your program isn't on their list, you can produce an ASCII text file, which will work with either. But when it comes to how you work with each program, the two diverge.

Right Writer 3.0 is a "batch-oriented" program. It analyzes your entire file at one time and produces a printout of the document. This printout flags potential problems and gives a brief description of the problem at each flagged point. You return to your word processor and use the printout to guide you in making changes. Unlike earlier versions, Right Writer lets you customize some of its features. You can turn off some of the 4000 rules it uses for checking, or modify its word dictionary.

Right Writer's manual is clearer and fuller than Grammatik III's. Right Writer gives you a reference section with

numbered grammatical points. Each flagged error in your printout is numbered. If you want a fuller explanation of a flagged problem and its solution, you look up the corresponding number in the reference section. It's also better at identifying trite, hackneyed and overworked expressions. (If you write for newspapers, of course, such expressions may be among your most treasured possessions.) The program also seems better at suggesting substitutes for wordy expressions. However, in being more complex and capable of catching a greater variety of problems, Right Writer seems to be casting a very wide net. The result is more false problem catches than with version 2.0. But, as always, you can ignore the advice.

You can also tell Right Writer which of several document types to compare your writing to. You can ask that it compare your writing to a technical document, a business document, a piece of fiction or a manual. You can also choose a target audience reading level, choosing between high school, college and general public. Right Writer puts out an occasional newsletter that's useful. There's always a practical article or two on writing in addition to their update ads. Right Writer is a good buy at \$129.95.

Grammatik III is more flexible than Right Writer. A short demo is a useful introduction to how the program works and what to expect from it. You proof your writing in either batch or interactive mode. In the interactive mode the program brings each flagged problem to the screen in succession. On screen you'll see a description of the type of problem and suggestions for correcting it. If that's not enough, you can turn to the on-line help feature and ask for a fuller explanation of that point of grammar. Grammatik III provides a wider range of reports than Right Writer, including a valuable summary report with each error separately listed for your review. It has a sharper analysis of word usage than Right Writer, forcing you to stop and think whether a particular word is the best choice of vocabulary for the context.

Grammatik III picks up subject-verb agreement problems; Right Writer doesn't. This can be a very useful feature. Grammatik III does a better job of flagging homonyms and commonly confused words than other programs. It picked up my incorrect use of "it's" in place of "its" in two instances and missed one. Right Writer didn't catch any. Grammatik III checks the context for some commonly misused words, and questions their use in particular phrases. If the publisher strengthens this feature in future versions, it will correct a serious failure in this class of software in general.

A substantial shortcoming of Grammatik III is the manual. The program is much more complex to use than Right Writer, which is not surprising given the wider range of options. The manual doesn't match this increased complexity with the necessary clarity on how to use the program. I made more mistakes setting up and using this program than others. Also, unlike the screen presentations, the manual doesn't explain the rules and points of grammar behind its error flagging. When you run Grammatik III in batch mode, you're bypassing the screen presentations

and receiving a printout only. The printed explanations of problems are often too terse. Unlike Right Writer's manual, which is quite educational to read on flagged points, Grammatik's manual provides no help.

Coming out this spring from Grammatik III is an add-on product called Grammatik III Utilities. It will allow the program to become a pop-up memory-resident program. A new Compare feature will let you enter a model document for your type of writing. From then on, it will run your writing against your own model for comparison. Currently, Grammatik III compares your writing to three documents: the Gettysburg Address, a Hemingway piece and an insurance contract. The new Utilities will also let you add your own rules to those of Grammatik, a very helpful option for the power user. At \$99 Grammatik III is a very good buy. The Utilities add-on will be offered to current owners for \$29 for a limited time. Then it will rise in price to \$49 or \$59. A Power Pack bundle of the main program and the utilities will retail for \$149. If I could own only one of these two powerful and well-designed programs, I would buy Grammatik III for its additional interactive mode. Otherwise Right Writer and Grammatik III appear about equal in their checking capabilities.

A Note About Spell Checking: Spell checking for both Grammatik III and Right Writer is inadequate. Their dictionaries are too small. This means that they flag many correct words as needing checking. Your document can end up with a lot of "word not in dictionary" messages. I turned off the spell checker completely in Grammatik III. For spell checking there are three alternatives. First, use a separate spell checker, as you have to with the Macintosh programs below. Second, plan to add a lot of words to their dictionaries each time you put a document through. Or, third, permanently merge a general dictionary and a specialized dictionary for your industry with the program's dictionary. For example, Grammatik III will allow you to add specialized dictionaries, including the electronic version of *Stedman's Medical Dictionary* or *Black's Law Dictionary*.

FOR THE MACINTOSH



None of the Macintosh products match Right Writer 3.0 or Grammatik III in the power of their usage- or grammar-checking capabilities. If you have easy access to a PC compatible you might want to buy one of the two PC programs instead of a Mac program. I use both Tops and MacLink to move files between my Mac II and my 386 PC for this type of checking. If you don't have this access, however, you'll

find the Macintosh programs useful despite their shortcomings.

Tools for Writers 1.5 is a good choice for people new to writing — whether students, professionals, businesspeople, scientists or budding young writers. Professor Eva Thury of Drexel University developed the software. If you're just starting and you know your future holds a lot of writing of reports, letters, papers, speeches or articles, you'll find a useful tool here. It's a style counter and a tutorial. It gives you a readability level report and flags vague words, weak verbs, problems with articles and more. Of all the programs I reviewed, it's the only one that seriously tries to check subordination problems. Spell checking is limited to a small dictionary. Tools for Writers issues a printout of your document with errors flagged and a brief reference to the type of each error. Interestingly, it's the only program that allows you to write your document inside the program, correct it and then transfer it to your word processor for formatting.

This program's strength lies in its exercises, on disk and in the manual, for improving your writing. Its most infuriating feature is redundancy in the manual. Warnings repeat ad nauseum. Tools for Writers works only with text-only files. It can't work with formatted word processing files. Unfortunately, the manual has no index. It's hard to believe anybody is writing manuals without indexes these days. Embarrassingly, the manual has several glaring typos and grammatical errors. It appears the publisher relied solely on the program itself for proofreading. Big mistake! At \$17, however, you can afford to try this program and discard it if you don't like it.

MacProof 3.0 is an improvement over version 2.0. Many bugs are gone and new features added. It's a memory-resident utility (a desk accessory, in Mac parlance) and is compatible with both MacWrite and Microsoft Word. You can also use ASCII or text-only files from other programs. MacProof combines features of counting, tutorial and usage checking. It has a good series of on-line tutorials, working with sample files. Besides counting for readability, it also runs checks of mechanical aspects of your writing, including punctuation, capitalization and double words. Usage checks include finding offensive words, including sexist, racist, scatological and religiously objectionable terms. This latter feature, not shared by its PC kin, reflects its academic origins. It also looks for often-confused, imprecise, nonstandard and wordy expressions. It flags nominalizations for possible misuse more consistently than other programs. (*Nominalization* is using a noun form of a verb, and it often leads to wordiness. For example, "Let's meet tomorrow *for the settling of details*" rather than "Let's meet tomorrow *to settle details*.") MacProof does not have a full spell-checking capability.

MacProof is flexible enough to allow you to turn on or off the usage rules you want it to apply against your text. You can also update its rule banks by adding your own entries. The on-line help features are quite good. The manual also gives good explanations of points of usage or grammar. Unique among the programs covered here,

MacProof highlights each paragraph's structure on screen. It asks you to compare the content of each sentence for its relevancy to the theme of the paragraph. It also asks that you compare the last sentence of one paragraph with the first sentence of the next for your transition in ideas. This feature is consistent with its tutorial orientation.

MacProof 3.0 allows you to customize its dictionary and usage checks to add your own pet peeves. It, too, has no index in its manual. But for me, its major drawback is that it's *only* interactive. I like to be able to get a printout of the text with the errors flagged and the problems described. At \$195 it's expensive for what you get.

Doug Clapp's Word Tools 1.2 is compatible with Microsoft Word and MacWrite. It can also accept ASCII or text-only files from other word processors. Like MacProof, this new version is a big improvement over earlier ones. It's a style counter and a basic punctuation and usage checker. It's more an interactive than a batch program, but it has features of both. On the screen it reviews and marks problems (and lets you change them) one at a time, or all at once. An irritating feature is that it highlights the problem word on the screen for only a moment. If you're not watching the screen at that moment, you miss it and wonder which word the screen problem identifier refers to.

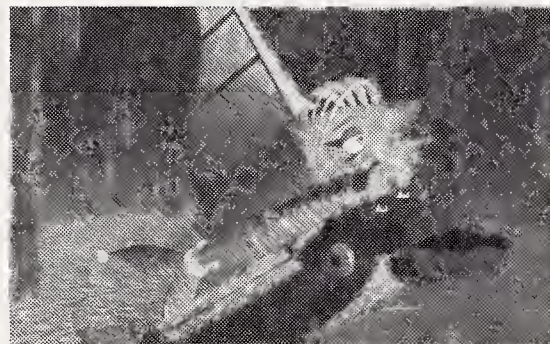
Word Tools prints a marked-up copy of your document and a statistical report on its readability. The printout flags potential problems but gives no explanations or suggestions for fixing them. For these you have to use the interactive screen mode. It will also print out a list of all the words used in a document, in alphabetical order or in order of use frequency. These lists are helpful for checking jargon or compiling a glossary. It has no spell checker. The program is flexible enough to allow you to customize its suspect lists for punctuation or usage. It doesn't check for passive voice or other verb problems.

This program has the thinnest documentation of any of them. The manual provides no reference list of the punctuation and usage rules. If you stumble on the idea, as I did, of printing out the technical notes, you get explanations of the suspect punctuation and usage rules — a bit more detailed than the screen explanations. This manual is not nearly as educational as those of competing products.

Of all the programs, Doug Clapp's Word Tools has the most bugs. It has problems with some files, incorrectly identifying punctuation errors where none exist. It doesn't work as smoothly as the other programs. However, these problems are easy to identify and ignore. If you're on a limited budget, at \$79.95 the program is worthwhile — if you have the patience to learn its idiosyncrasies and plan to grow with it.

All three Macintosh programs will help you improve your writing, unless you're one of those very accomplished writers who require a very light edit. Overall, MacProof is the most complete, checking for more errors. If the developers would add a decent index and a printout with

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errors flagged, identified as to type and corrections suggested, it would be worth the \$195. Doug Clapp's Word Tools is priced right. It does enough to justify the purchase. If you customize it, you can end up with a more powerful program. Tools for Writers gives the best value for your dollar. It's a lot of program for \$17. Don't, however, expect fast updates. It doesn't have a professional software company developing or marketing it.

MacProof 3.0
Automated Language Processing Systems
295 Chipeta Way
P.O. Box 8719
Salt Lake City, Utah 84108
801-584-3000
\$195

Doug Clapp's Word Tools 1.2
Aegis Development
115 Pico Boulevard
Santa Monica, CA 90405,
800-345-9871 or 213-392-9972
\$79.95

Tools for Writers 1.5
Kinko's Academic Courseware Exchange
4141 State Street
Santa Barbara, CA 93110
800-235-6919; in California 800-292-6640
\$17

Grammatik III
Reference Software
330 Townsend, Suite 123
San Francisco, CA 94107-9883
415-541-0222
\$99; Power Pack extension, \$29-\$59

RightWriter 3.0
RightSoft, Inc.
4545 Samuel Street
Sarasota, FL 34233-9912
\$129.95

PC-Style 1.0
ButtonWare, Inc.
P.O. Box 5786
Bellevue, WA 98006,
800-JBUTTON or 206-454-0479
\$29.95

Readability Program
Scandinavian Systems PC
51 Monroe Street, Suite 1101
Rockville, MD 20850
301-294-7453

Sensible Grammar
Sensible Software, Inc. 335 E. Big Beaver, Suite 207
Troy, MI 48083
313-528-1950

Punctuation and Style
Oasis Systems
P.O. Box 112489
San Diego, CA 92111
619-453-5711

Michael Kelly is President of K-W Publications, a book publishing company located in San Diego, California. His publishing experience includes the design, editing, production and printing of numerous books for major book publishers over the last decade.

by John Odam

FONTGRAPHER

When I told my wife that I had just designed a typeface, she was singularly unimpressed. "Aren't there enough already?" she said. I conceded her point. Perhaps fonts, like dog and cats, should be spayed to prevent the kind of problem that Steve Hannaford describes (see page 5).

What got me started on this type design caper was a conversation with a magazine art director who lives in a remote part of upstate New York. He wanted to be able to lay out his whole publication from his desktop in the woods and modem it down to the city. The only snag was that he had his heart set on a particular typeface that was unavailable for the Macintosh and unlikely to be released by Adobe in the near future.

Could it be rendered in Fontographer? I told him, yes, it certainly could, but it would be very time consuming with no guarantee of satisfactory results.

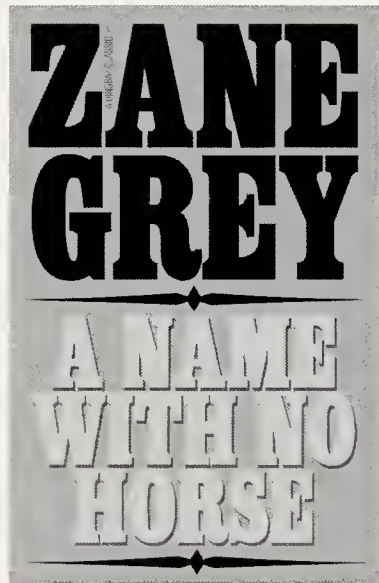
Later I started to wonder how good my advice really was. Did I really have any idea how much work was involved in rendering an existing typeface in Fontographer and proofing it on the Linotronic? I concluded that my opinion was based on a rather superficial experiment with Fontographer two years ago (see Verbum 1.1). For my own satisfaction, I needed more experience.

Welcome back

Fontographer had changed only slightly since I had last used it. Those same three drawing tools —

the arc, the corner and the tangent — made it possible to draw any shape. What was different was my equipment: large screen and flatbed scanner. To redraw an existing typeface turned out to be easier than I had indicated to my

rural art director, but there were some unexpected problems. The first problem was how to get the type scanned from an old type specimen book and into Fontographer's base layer. Lining up a 12-point showing of type in the scanner so that the baseline was perfectly horizontal proved to be frustrating. Solution: photocopy the book page, line the copy on the drawing board with a T-square (I had to look around the studio for that item) and trim off one edge of the paper parallel with the type. Then line up the trimmed photocopy in the scanner. The second problem was how to move each scanned letter efficiently into the base layer and scale it to the right proportion. I had saved the scan as a MacPaint file and at first I merely



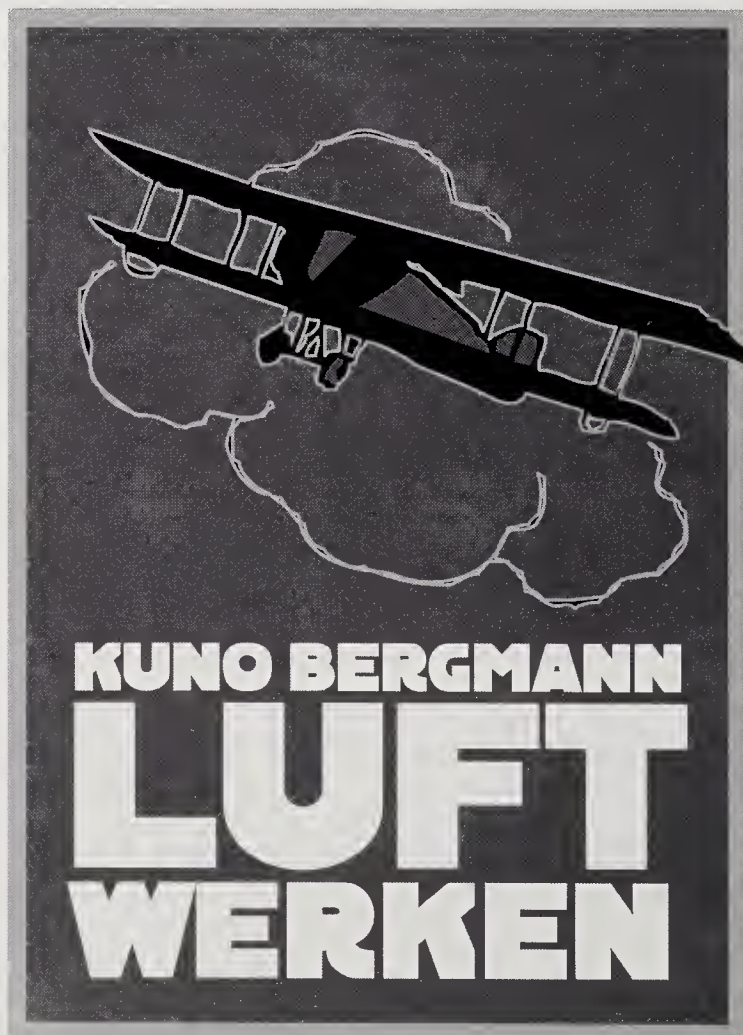
1

1. A simple exercise: Scanning in an existing font — Egyptian Bold Condensed — and rendering it in Fontographer. The production time was about 15 minutes per character.

2. Resurrecting dead type: The missing characters from this unknown font from a 1913 German poster had to be invented by extrapolating from the existing ones. I call this font Drucker.

3. Starting from scratch: From pencil outline to preliminary printouts, a new typeface, Bistro, evolves. I ultimately found the oblique vertical stroke endings on the lowercase letters annoying.

4. Further refinement: Bistro in its current form with some of the eccentricities toned down to increase readability.



2



3



4

selected each letter with the selection rectangle and stored them, one by one, in the scrapbook. I was now able to open a new font file in Fontographer and load in the images to the base layer of each character window. To my surprise, the letters came in at different sizes, so I was unable to apply a standard scale factor to them. Some needed enlargement while others needed reduction. Why was this so? Evidently the size of the selection rectangle affects the scale of the image it selects. To have generated a more accurate and consistent set of templates I should have first drawn reference lines above and below the original scanned line of type and made my selection tool begin and end at these lines. Once the base templates were all correct and in place, the drawing process went surprisingly fast, however. My first rough version of Egyptian Bold Condensed averaged 15 minutes per character. The metrics window allows letters to be seen not only at different sizes but also in relationship to each other. This

5. Fractional solution: To overcome the lack of shilling fractions in desktop publishing systems a special font was commissioned with the full range of fractions in Futura Book, Futura Bold and Caslon (shown here). Fontographer fonts mix well with those of Adobe and other suppliers with no apparent difficulty except identifying number conflicts.

6. Gaining weight: Using FreeHand, a program developed by Altsys and marketed by Aldus, fonts can be made bold and condensed to suit the page design. True bold and condensed versions of fonts, however, should have the thick/thin ratio adjusted properly to maintain the proportions of the lettering.

is where the skilled eye comes in: judging how much space to allow around each character, whether to offset (to allow part of a character, such as a serif, to extend into the zone of its neighbor) and when to create kerning pairs (combinations of letters such as LT or AV that need special spacing). Fontographer provides sophisticated and infinitesimally adjustable controls for these esoteric details of type design.

Going it alone

Experiments with redrawing classic fonts gave me confidence to attempt designing one from scratch — both upper- and lowercase, punctuation and numbers. The lowercase “h” seemed a logical starting point. A relatively easy

Font Design: A Different Approach

Rather than aiming for smooth readability of conventional type, Zuzana Licko has let the limitations of the personal computer's low resolution output determine the letterforms with highly original results. The angular geometry of these fonts evokes the Bauhaus, yet has a thoroughly 1990's flavor that has been used to advantage by contemporary designers such as April Greiman. These typefaces — and many others — are available from Zuzana Licko Design, 48 Shattuck square, No. 175, Berkeley, California 94704-1140.

a b c d e f g

h i j k l m n

o p q r s t u

v w x y z

a b c d e f g h i j k l m n
o p q r s t u v w x y z

How does one become an emigre?

a b c d e f g h i j k l m n
o p q r s t u v w x y z

How does one become an emigre?

a b c d e f g h i j k l m n
o p q r s t u v w x y z

How does one become an emigre?

5

5/16

character to draw, it determines the thick-and-thin relationship, the ascenders and the x-height. And with cutting, pasting and modifying, it forms the basis for the n, i, j, l, k, m, n and r. To ensure good “color” I used the thick-and-thin relationship and general proportions of Helvetica Light, always comparing its characters with mine in test proofs. Next came the letters d, b, p and q, from which the o, a, e and c could be derived. Certain letters are problematic: the “g” and “s,” for example. There were many false starts and cul-de-sacs in the design process, but after a week's worth of evenings I was reasonably satisfied with my efforts.

Small is beautiful

After the hard work came the fun part. Fontographer generates screen fonts in any size you want, as well as a printer font. It generates these files so quickly that the chore of constantly updating and replacing these items with every minor change was only a minor nuisance. The main problem turned out to be that the font numbers I had assigned conflicted with other fonts in my system. I solved the problem by keeping my own fonts in their own “suitcase” and turning it off whenever conflicts arose. Once my system had been properly configured, I could put my fonts to use in lurid tabloid headlines or quaint posters. Using a variety of powerful PostScript applications, I could further condense, add color, adjust kerning, add drop shadows — in fact, do anything that I could do with a commercial font. Giant headlines are amusing, but the most surprisingly enjoyable experience for me was being able to generate large blocks of text in 9- or 10-point type and to see them proofed at 2540 dpi.

WINE LIST LE BISTRO



“Some typefaces may take years to be fully appreciated by the public, much as certain wines require more years than others to ripen before they can be considered mature or ready to use. Some typefaces, like some wines, may never be accepted.”
U&Lc



6

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Trips
89





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ART SUBMISSIONS Send creative works with a 100-word explanation of the process used (including hardware and software used) and a 50-word biography, on disk and on paper (Macintosh format preferred, MS Word or MacWrite for text files). If work involves combined media, photostats, photos, or transparencies are welcomed. Please include a self-addressed, stamped envelope for return of the materials. Send to Verbum Art Editor.

CLASSIFIEDS \$.50 per word, \$20.00 minimum. Payment with order (VISA/MC accepted). Printed or typewritten copy only please; disk preferred (MS Word or MacWrite format). Send to Verbum Classifieds.

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VERBUM BACK ISSUES

1.1 Early 1987 The first *Verbum*, all black and white, 300 dpi laser output, beautifully printed on 70 lb. Sequoia Matte. This epic launch of the *Verbum* journal, designed with *PageMaker 1.2* by John Odam, inspired designers worldwide. • Featured artists: Avant-garde concept artist Paul Rutkovsky with redigitized illustrations, Mike Swartzbeck's trailblazing composite illustrations from scanned images, excerpts from David Brunn's *Irish Book of Invasion* using innovative digital photography techniques. • Columns: Michael Singleton's The Artist's Toolbox offers a primer on bitmapped graphics with a feature-by-feature comparison of leading programs. Behind the Scenes by Kim Criswell responds to the state of the industry circa January, 1987 with "Big World, MacWorld." "Painting by Numbers" by Tony Smith introduces the PostScript page description language. John Odam's "First Contact" takes *Fontographer* through its paces.

1.2 Mid-1987 This issue was produced with *ReadySetGo! 3*, 1270 dpi Lino imagesetter output, and digital color separations. • Features: "Amiga Video" looks at the unfolding possibilities of the animated Amiga. "Painting as Spiritual Discipline" by Jack Davis shares the artist's experiences with Japan's elegant painting program, *Mac Calligraphy*. "Big Blue Art" by Mike Kelly profiles the world of IBM graphics from the *Verbum* point of view. "Lino Seps" by Mike Saenz explores the new wave of digital color separation, featuring Marvel Comics' new *Iron Man* cover created by Saenz. "Digital Studies" by Australian Mac-artist Malcolm Thain captures the grace of passive

and active female forms. • The usual "Gallery" of unusually inspired pieces. • Columns: The Artist's Toolbox compares PostScript illustration programs *Adobe Illustrator* and *CricketDraw* as well as two font editors and four special effects programs. "Desktop Techniques" by John Baxter looks at parallels between low- and high-tech graphics tools.

1.3 Late 1987 The third *Verbum* was produced with *PageMaker 2.0*. More pages, more color, a very dense issue, the first to be sold in quantity on the newsstands. • Features: April Greiman's "Pacific Wave" sculpture/exhibit in Venice, Italy. "Desktop Video." "Continuum" by Linnea Dayton explores the future of *Verbum*. Dominique de Bardonneche-Berglund, Europe's digital painter of renown. Jack Davis explores *ImageStudio*. "Creative Waveforms" by Neal Fox focuses on music. • Columns: Tony Smith on 3-D with PostScript. The Artist's Toolbox compares object-oriented programs on the Mac. John Odam's First Contact treats *Adobe Illustrator*, including a color piece. Behind the Scenes takes in the fall shows and industry news of note. New Frontier Products chronicles significant entries.

2.1 Winter/Spring 1988 The first color cover features an *Illustrator 88* piece by John Odam, digitally separated. Ever more color and new columns: "Against the Grain" by Steve Hannaford offers a practical counterpoint to *Verbum's* creative excitement, with technical/economic guidance. "Stackware Party" by Linnea Dayton reviews artistic HyperCard stacks. • Features: Lawrence Kaplan's "Hot-Tech"

prints, "The Fine Art of Dot-Matrix Printing" by Nira, "PC 3D Showcase" by Jack Davis, "Color Output Options" by Erfert Nielson. • Columns: John Odam's "First Contact" explores Aldus *FreeHand* with color illustrations, all digitally separated.

2.2 Summer 1988 *Verbum's* first cover theme is "Fashion" with a Jack Davis cover illustration done in *Adobe Illustrator*, and a major article on PC Fashion Design. • Other features include: "Mel Ristau's Electroglyphs" - iconic PostScript illustrations, "Georgianne Deen's Rock and Rolling Amiga," "Sound Sampling Sensation" by Neal Fox and a how-to on shooting slides off your high-resolution monitor. • Columns: "Against the Grain" gets to the "bottom line" of the imagesetting business; "First Contact" treats *Illustrator 88*.

2.3 Fall 1988 "Space" concept issue features a survey of Architectural CADD apps on the Mac and IBM-pc, with a "Living Space" gallery in kind. Space theme is also followed with an "Outer Space" gallery of cosmic visions by Ron Cobb and William Lombardo. The regular ("Art Space") gallery features landmark *PixelPaint* works by Dominique De Bardonneche-Berglund, Bert Monroy and Ikeda Tomoyo, digitally separated with *PixelPaint 2.0*. Nicholas Mac Connell and Linnea Dayton travel to Inner Space with "Through the Silicon Looking Glass," an exploration of pcs as mind machines... • Columns: John Odam experiments with *PixelPaint* (all digital seps). Against the Grain takes a hard look at digital color seps. New Frontier - lots of color news.

PRODUCTS

Verbum Digital Type Poster Designed by Jack Davis and Susan Merriitt, this deluxe five-color, 17" x 22" poster showcases the variety of digital type effects possible on the Macintosh. It was produced on a Mac II with *PageMaker 3.0*, output on a Linotronic L-300 and printed on a 100 lb. coated sheet. The text explains the history of initial caps in publishing, and how each sample letter was created. A framable "illuminated manuscript" for every electronic design studio. *Limited edition of 2000. Shipped in capped tube. \$10.00* postpaid.

Verbum Stack 1.5 1988 update of the seed of a hypermedia journal. Packed with art, it has received rave reviews for design innovation. All registered owners will receive notice of the first module, which will contain a PC Art Resources database, the Hypergallery of innovative creative works and other trailblazing features. **\$10.00** postpaid (registered owners send \$4.00 for update).

Making Art on the Macintosh II by Michael Gosney and Linnea Dayton. Written by the editors of *Verbum*, this book is the comprehensive reference for graphics on the Mac II. All major software and hardware products are covered. Processes are described and shown with extensive galleries of creative works from top artists and designers. The book features a 16-page color signature packed with inspiring art samples and informative captions. An invaluable guide for all Mac owners. 336 pages, **\$22.95**.

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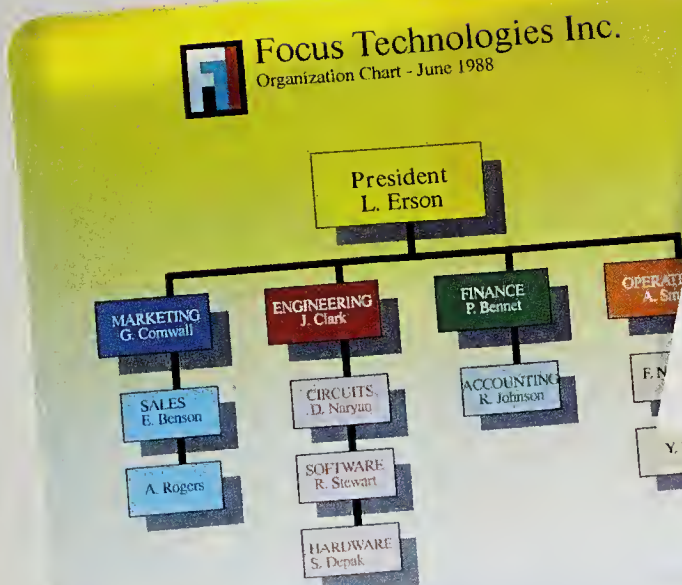
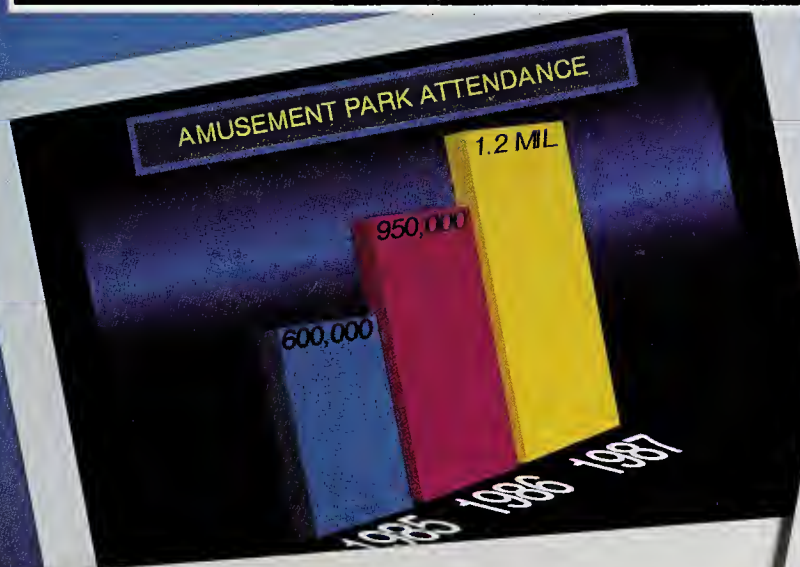
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FOCAL POINTS NEWS Focus Technologies Employee Newsletter

1988 BUDGETS RELEASED

Recognizing the need for new product development, the 1988 budget reflects a large increase in engineering expenditures. Marketing Resources are also up from last year. In anticipation of the acquisition of a Tektronix color image printer, Marketing will use the new printer to produce more effective customer presentations and internal communications documents such as this one.

Image Printer. This new system is capable of producing color prints on paper or overhead transparency film. Anticipated uses include generating comprehensive proofs for marketing and advertising material, production of presentation graphics (in-house or by contract), and engineering use and (of course) producing your favorite newsletter which you are now reading.



NEW LENS MATERIAL TECHNOLOGY LAUNCHED

The advanced research labs introduced LENZE, a new metallic compound which transmits light more efficiently than most glass and plastic base materials. LENZE is based on technology derived from superconductor research. It has been measured at over 99.99999% transmission efficiency.

UNUSUAL MOLECULAR STRUCTURE OF LENZE

The LENZE material is still in the experimental stages, requiring relatively low (sub-freezing) temperatures to remain stable. If this temperature can be raised to about 100 degrees Fahrenheit, LENZE has the potential to become our hottest product!

GRAPHICS DEPARTMENT FORMED

Focus Technologies employees will welcome the new graphics department which was formed to reduce expenditures on outside services. Art Eason, the department head, promises 24 hour turnaround on most presentation jobs with less than 25 overhead transparencies.

The graphics department has installed an Apple® Macintosh™ II computer with a Tektronix Color

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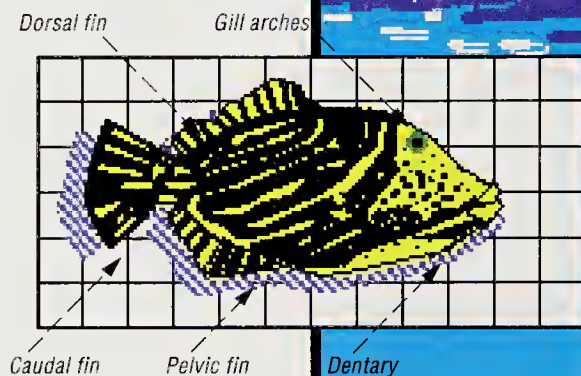
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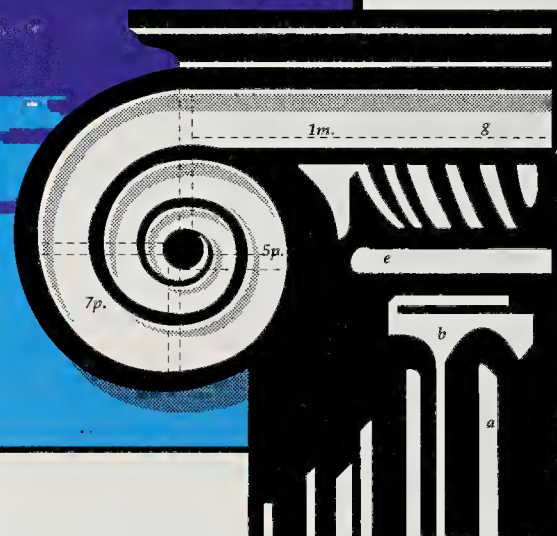
1 These faces were created using the freehand Bezier tool, which allows you to create editable Bezier paths quickly and easily. Color preview lets you design on screen and in color.

2 Both painting and drawing features were used to create this scientific illustration.



3 Special effects, such as these bubbles on the water, can be easily created with custom-programmed, plug-in paint tools.

4 The freehand Bezier tool provided the precise control necessary to draw this architectural column.



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